

DX News

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Volume 61, No. 2 - October 11, 1993 (ISSN 0737-1659)



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CPC Test Calendar

Call	Freq.	Date	EDT Time
WELC	1150	Oct. 11, 1993	0001-0030
KGNM	1270	Oct. 11, 1993	0100-0130
KVON	1440	Oct. 11, 1993	0300-0330
KSOK	1280	Oct. 11, 1993	0400-0500
WCSI	1010	Oct. 12, 1993	0200-0300
WTRP	620	Oct. 17, 1993	0000-0030
KYUK	640	Oct. 17, 1993	0400-0500
WAGL	1560	Oct. 18, 1993	0300-0330
WYLS	670	Oct. 23, 1993	0100-0130
WYLO	540	Oct. 24, 1993	0200-0230
WRCA	1330	Oct. 25, 1993	0130-0200
KATL	770	Oct. 24, 1993	0330-0400
WDLM	960	Nov. 1, 1993	EST 0100-0130
WSSH	1510	Nov. 1, 1993	EST 0300-0400
KFJM	1370	Nov. 6, 1993	EST 0100-0130
KREW	1210	Nov. 6, 1993	EST 0300-0330
KDAL	610	Nov. 15, 1993	EST 0100-0130
WXYT	1270	Nov. 15, 1993	EST 0130-0200
KWSU	1250	Nov. 20, 1993	EST 0300-0400
WPIF	1500	Nov. 22, 1993	EST 0530-0600

WTRP-620 - 806 Franklin Road - LaGrange, GA 30241 will conduct a DX test between 12:00 and 12:30 am EDT Sunday, Oct. 17. The test will include Morse code and gospel music. Reception reports may be sent to Mr. Michael Thompson, General Manager. Arranged by J. D. Stephens for the IRCA CPC.

KYUK-640 - P.O. Box 468, Bethel, AK 99559 will conduct a DX test Sunday, October 17, between 4:00 and 5:00 am Eastern Daylight time. The test will consist of polkas, marching music, VLD's, and possibly CID's. Reception reports should be sent to Mr. Joe Seibert, Engineering Staff. Arranged by the National Radio Club CPC.

WYLS-670 - 11474 U.S. Hwy 11, York, AL 36925 will conduct a DX TEST Saturday, October 23, between 1:00 and 1:30 am EDT. The test will consist of college fight songs and polkas. Send reports to Mr. Tim Craddock. Arranged by the National

Radio Club CPC.

WAGL-1560 - 101 South Woodland Drive - Lancaster SC 29720-2244 will conduct a DX test between 3:00 and 3:30 am EDT Monday, Oct. 18. The test will include Morse code ID's and will be at 50 kW. Reception reports may be sent to Mr. B. Len Phillips, Jr., General Manager. Arranged by J. D. Stephens for the IRCA CPC.

WYLO-540 (Jackson, WI) - 3450D N. 126th St. - Brookfield, WI 53005 will conduct a DX test between 2:00 and 2:30 am EDT Sunday, Oct. 24. The test will include c&w and march music. Reception reports may be sent to Mr. Frank Colburn. Arranged by the National Radio Club CPC.

From the Publisher ... We find all sorts of good stuff in this issue, including a special pull-out edition of the *NRC Product Catalog '94* for NRC members. Look for Ron Musco's account of Enfield '93 in the Musings section, and then next week we'll run John Malicky's exhaustive report of the entire convention weekend plus more photos.

Speaking of conventions, this is the last call for bids for the '94 convention. If you did not make a presentation at Enfield, write directly to Board chairman Ken Chatterton (address on back cover) and give him complete details of your bid.

DX Time Machine

From the pages of DX News:

50 years ago ... from the Oct. 9, 1943 DXN: Dick Cooper, Kittanning, PA reported poor reception conditions during the previous week because of a very large sunspot that disrupted radio and telephone communications ... DX programs were scheduled from WRBL-1230, CGCU-1270, and KSJB-1400 or 600, depending upon when the new FCC frequency grant was to be approved.

25 years ago ... from the October 5, 1964 DXN: A draft constitution for the proposed IRCA/NRC merger was being drawn up.

10 years ago ... from the October 10, 1983 DXN: ANARC formed the "ANARC Computer Committee" to help those in the DX hobby and to provide them with public domain computer programs ... the Radio West #6 catalog was available.

AM Switch

Jerry Starr
c/o WHOT Radio
4040 Simon Road
Youngstown, OH 44512-1320

Status changes in AM stations, supplied by the FCC and listeners

CALL LETTER CHANGES

Old call:

960	WLWV	MD	Salisbury	WTGM
990	KKIS	CA	Pittsburg	KATD
1090	KACO	TX	Bellville	KFRD
1150	KDLF	TX	Port Neches	KUHD
1170	WHNE	GA	Cumming	WMLB
1210	WTCN	MN	Stillwater	WIMN
1260	WTKL	LA	Baton Rouge	WBRH
1330	KDOK	TX	Tyler	KGLD
1400	WNNK	PA	Harrisburg	WTCY
1470	KGNG	MO	Brookfield	KZBK
1590	KOGO	CA	Ventura	KBBY
1630	*New	MD	Baltimore	WAFE*

New call:



*Notes: The 1630 station listed above is a special temporary experimental station. Several new EBS alert systems are being tested and this station will conduct the experiments. It is very unusual that an experimental station was assigned a normal broadcast-type call. All experimental licenses granted in the past number of years have been alpha-numeric with a "2" in the call. The NAB antenna test station on 1660 kHz granted in 1991 was assigned the call KAZXCB. All experimental licenses granted in the past several months have all had a "KQ2" prefix. Why this station was assigned WAFE is just another mystery of the always unpredictable Federal Communications Commission.

APPLICATIONS FOR NEW STATIONS

1560 WI Altoona: 2500/1000 (1700 CH) U1

GRANTS FOR NEW STATIONS

1630 MD Baltimore: see Notes above, no power or antenna shown

APPLICATIONS FROM EXISTING FACILITIES

580 WKAQ PR San Juan: powers to 10000/10000
670 KMVP CO Commerce City: day power to 5000 watts
1010 KIQI CA San Francisco: modify application for power increase to show 1500 watts nights (the file for the applications submitted by this station the last 10 years must use up a whole room at the FCC)
1040 WSGH NC Lewisville: add 182 watts nights U3
1240 KNEM MO Nevada: reduce powers to 500/500

GRANTS TO EXISTING FACILITIES

660 KSKY TX Balch Springs: changes in antenna system
760 WVNE MA Leicester: add night power of 1.5 watts, antenna to U1 (this was granted at the same time as their daytime power increase noted two issues ago. Will they actually use it?)
980 KMPQ TX Rosenberg: powers to 5000/5000, antenna to U4
1100 KZPM CA Bakersfield: day power to 5000, antenna to U2

1100 KZPM CA Bakersfield: day power to 5000, antenna to U2
1170 WAVS FL Davie: changes in antenna system
1260 KJQI CA San Fernando: city of license to Beverly Hills

OTHERNESS

770 WABC NY New York: station may have some unscheduled silent periods in the early morning hours over the next month. WINS-1010 is erecting new towers and will be transmitting from WABC's auxiliary antenna in Lodi, NJ until their new system is completed. WABC will have to pull the plug a few times to facilitate these changes.
800 WKZI IL Casey: silent station is ON THE AIR
810 KKGD CO Rifle: we typo'd the call of this silent station as "KKDG" last issue
840 WLPY VA Purcellville: new station is ON THE AIR and has been for over a year, remove "new station" note from this entry in the Log
900 KICR LA Oakdale: silent station has been donated to local Baptist church and is expected to return to the air soon.
910 WGBI PA Scranton: station has moved into the facilities of WILK-980 (on which they simulcast) so change the address in the Log for both these stations to the one listed for WILK-980.
930 KRKY CO Granby: station is SILENT
980 KGSM IL Chester: station is SILENT (this is the "K" call east of the Mississippi River that everybody forgets about)
990 WNRV VA Narrows: silent station is ON THE AIR,
1010 WINS NY New York: see 770 item above, may be a good chance for hear this station as they will be U1 while operating from the WABC site.
1030 KKSA CA Folsom: This CP for a new station expired in 1990 and the CP was CANCELLED in 1991 by the FCC while the licensee was in jail for a series of felony convictions. In an unprecedented move the FCC reinstated the CP to protect the interests of "innocent creditors". The CP has been sold to new owners and may now be built and put on the air. The former licensee will not receive any of the proceeds of the sale
1110 WKZV PA Washington: station went SILENT 9-2 but came back ON THE AIR 9-9, reasons unknown
1150 WGEN PA New Kensington: went SILENT again 9-2 but came back ON THE AIR 9-13
KSVE TX El Paso: CP for 5000/380 U1 is on
WNLN VA Churchville: CP for 2500/35 is on
1210 WIMN MN Stillwater: silent as WTCN is ON THE AIR
1240 KRAL WY Rawlins: silent station is set to return to the air, may be on by the time you read this.
1260 KRKE CO Aspen: silent station has new owners, will be returned to the air
1270 WHYD GA Columbus: station is SILENT
1310 KMBS LA West Monroe: silent station is ON THE AIR
1340 WNBS KY Murray: silent station is ON THE AIR (call commemorates Nathan B. Stubblefield whose late 19th century wireless telephone experiments in Murray have led some to hail him as the true inventor of radio)



- 1460 WCRY VA Fuquay-Varina: silent station has new owner who plans to return it to the air
 1480 WGVU MI Kentwood: CP for 2500/5000 U2 is on
 1490 WCCD SC Chester: station is SILENT
 1510 WSSH MA Boston: station went SILENT again 8-27, call to the station reveals only that they are "not at liberty to say" what is going on. They have now returned with talk and sports.
 1530 WFIC VA Collinsville: station is SILENT, is shown in new Log as being a "new" station which is incorrect
 1560 KKID OK Sallisaw: station is SILENT due to a fire, a note in MSJ indicates that KKID will not return but don't remove it from your Log yet, the license for the facility could still be sold.

THE RUSH TO THE EXPANDED BAND

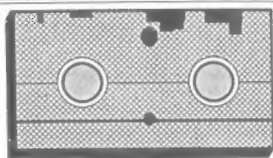
The FCC's window for stations to file for migration to the expanded AM band closed June 30. In a two month period 997 AM stations filed to make this move! This is many times the number of stations who will actually be granted the move. Additionally 87 stations that were technically ineligible filed as did 28 other stations that missed the deadline. These applications were rejected. So it would appear that the new band is quite a bit more popular than anybody had expected. According to the FCC between 200 to 250 stations can be accommodated on the new band, they will all be 10000/1000 U1. The applications which meet all other requirements are now being run through a complex computer program to "calculate the allotment plan" to optimize the band. Evidently the FCC won't release any more information concerning who the lucky winners are until the entire band plan is complete. We have a copy of the FCC's Public Notice 34479 which lists all the stations making application to move, some of them are pretty surprising. We will offer this list in a future issue. The reason you won't find it in this issue are two-fold. One, it will take us many hours to enter the database into our AMS computer and, two, the good ol' FCC supplied us with a list that has two page 5's and two page 7's but no pages 4 or 6. It's good to see that the Commission is maintaining its usual standard of excellence. An example of some surprises on the list: KJR-950, WLEE-1320, WABS-780, KCOR-1350, KEYH-850, KAAM-1310, WHBQ-560, WREC-600, WHJJ-920, WEEP-1080, WDAS-1480, WMNI-920, WERE-1300, WSLR-1350, WTRY-980, WBBF-950, WKDM-1380, WLQV-1500, WTEM-570, WILD-1090, WACK-1380, WCMQ-1210, WNDB-1150, WPOP-1410, KOIT-1260, KOJY-540, WKRG-710, WJOK-690. Stay tuned.

THANKS: Dave Schmidt, Wayne Heinen, Al Merriman, Ed Krejny, MSJ

73 and Good DX, *Jerry & BKE* Jerry Starr & Buffalo K. Fooman

NOTE: WE WILL BE OFF RACING IN NORTH WILKESBORO, NC NEXT WEEK SO AM SWITCH WILL RETURN IN ISSUE #4

Now available: the highlights of the 1993 NRC Convention on video!
 Just under five hours of the Enfield convention on a T-160 VHS tape, taped by Ernie J. Wesolowski.
\$20.00. Order from NRC Publications; NY orders, please add sales tax.



Domestic DX Digest

North: Bill Hale

495 Creekview Drive - Meridian, ID 83642-3241

Note: DDXD-S - until further notice, send loggings to DDXD-N and DDXD-E

East: Dave Braun

11 Mill Bend Acres - Wyoming, DE 19934-9523

DX Catches in the U. S. and Canada, with 24-hr. ELT



DDXD-North



MEDIUM WAVE RAMBLINGS



- ☐ Welcome to DDXD-West(?). Don't be nervous. Don't be rocky. You're our teenage... no wait. That's not right. East is least, West is best. Well, maybe. Bottom line here is... if you want to report to me, great. If you feel comfortable sending your loggings east, that's fine too. But do report. That way the whole club benefits from your DX sessions.
- ☐ Is there a station (or stations) which you've never bagged, and it's really bugging you? Maybe a DX Test would bring that signal your way. How do it work? you say. Write a note to the NRC CPC, enclose two stamps for each station requested, and the CPC takes it from there. So far, great success has been achieved in scheduling these tests. So, why are you still sitting there? THANKS, NRC CPC... for a job well done.
- ☐ One item of interest picked up off Fido-Net... As of Monday, September 20th, KSFO-560 went all-talk, changing formats from oldies. The tentative lineup includes: *America in the Morning*, Gene Nelson, Dave Henderson, Oakland A's (sportstalk?), Ginny Prior, G. Gordon Liddy *Criminaltalk*, Larry King, Jim Bohannon, Peter B. Collins, Bruce Williams, Dr. Joy Browne.
- ☐ We're into our weekly schedule now, so don't hold back those loggings. Get 'em in while they're HOT. Deadlines are Saturday's mail.

SPECIAL

WOLK-WHON

P.O. Box 1647
 Tingle Road
 Richmond, Indiana 47375

- 570 WKYX KY Paducah - 9/14 1710 - Good with Larry King, network and local ads, *News-Talk Radio*, AM 570 WKYX IDs. Drops longstanding AC format. (BB-MO)
- 980 KSGM IL Cheater - Station is silent. (BB-MO)
- 1450 KIOV ID Payette - Station is silent. Company is putting all efforts into FMR (100.3 *Pirate Radio*) which has moved studios to the back of a poolroom in Boise. No :-). [Ed-ID]

UNIDs and UNID HELP

- 530 R. Visión Cristiana Turks and Caicos - This is, no doubt, the unID loggings from last issue from B.B. McClurken and Jack Woods. See last issue's IDXD. Chalk it up, guys! [Ed-ID] Confirmed by (BB-MO)
- 1110 UNID ?? - 9/16 2245-0010 + - Strong at times over/under KFAB & other unID SS talk with SS announcer and some EE ROK, pretty progressive, with other SS progressive ROK, O/U QRM. Possibly another Mexican or California SS? Other unID was probably Mexican too, but no music heard on the one which was really weak. No hourly IDs heard for either, but dominant station had faded both - 2300 and 2400. Any ideas? (JBL-MO)

- 1290 UNID ?? - 9/25 0628+ - Heard closed circuit USA Network affiliate feed alerting stations that President Clinton's speech would be heard live *Monday Night*. Wasn't that speech last Monday (the 20th)? (JB-TX)
- KOIL NE Omaha - Is Shawn Axelrod's unID (Issue 30), as they were simulcasting KXKT-103.7 Atlantic, IA until KKAR took over the frequency. (EB-MO) Also confirmed by Gary Houdek of Munden, Kansas.
- 1610 UNID ?? - 9/12 0740 - Very poor with bits of a woman talking about *Viking* ???, saying *Hello Shoppers*. A TIS for a mall? (SA-MB) [What do they call that mega-mall in the Minneapolis area? Did a blue light come on in your radio? hi - Ed.]

DX AND EQUIPMENT TESTS

- 1010 WCSI IN Columbus - 9/6 0200 - Not heard. XEHL dominating. (SA-MB)
- 1460 WCEI MD Easton - 9/5 0230 - Very poor with CID heard twice. Under KKPR, KGGO & CJOY. (SA-MB)
- 1530 WCEG MA Middleboro - 9/6 0130 - Not heard. Only WCKY, XEVR, KFBK. (SA-MB)
- 1560 WSEZ IN Peru - 9/5 0130 - Not heard. Only KKA, WQEW, KCJJ & WPAD. (SA-MB)

MIDNIGHT TO 0600 HOURS ELT

- 920 WAFS GA Atlanta - 9/13 0258 - Fair to poor with KARN/KYST with USA Radio News, local weather ⇒ Christian instrumental music. Sixth ex-local heard here! Local WGNU off. (EB-MO)
- 1010 WGUN GA Atlanta - 9/10 0700 - Poor with *Right here on WGUN*. In a mess. New, for GA #2. (SA-MB)
- 1250 KALO TX Port Arthur - 9/12 Midnight - Very good over WEMP/WREN with sign-off, giving business hours as 0930-1800 (ELT). Heard in GA 9/11 89! (EB-MO)
- 1270 KWEB MN Rochester - 9/19 0530 - Good over WKBF with legal ID and sports talk. (EB-MO)
- 1310 WDOD TN Chattanooga - 9/8 0530 - ID ⇒ oldies. Not a first-timer, but a good signal this time. (MB-IN)
- 1450 WLYV IN Ft. Wayne - 9/9 0700 - Poor with *Fort Wayne's 24 hour sports information station* ID. (SA-MB)
- 1460 KGGO IA Des Moines - 9/11 0231 - Fair to poor in tight KIRL null with 95 KGGO ID, CDT TC into local weather, another ID and into AOR. KIRL's towers are three miles from me! (EB-MO)

0800 TO 1600 HOURS ELT

- 1370 KGNO KS Dodge City - 9/24 0803-0811 - With news and weather for Dodge City/vicinity, and ID *Information, entertainment and the best oldies for Southwest Kansas on 1370, KGNO*. Occasionally in, but booming this morning. (JB-TX)

1600 TO 2400 HOURS ELT

- 540 WYLO WI Jackson - 9/8 2040 - Fair with religious music ⇒ ID. (MB-IN)
- 600 WMT IA Cedar Rapids - 9/13 1727 - Fair with college FB report, *Your Sports and Information Leader*, 600 WMT ID, ad for *Gold Bond Medicated Powder*. Over WREC with KFNS-590 splash. (EB-MO)

- 690 WITX LA New Orleans - 9/16 2230 - Strong with talk. Mention of *Marilyn Monroe's stolen dress*, CLs. Rare here ... only two or three times since 1986. (JEL-MO)
- 1310 WIBA WI Madison - 9/11 1905 - Fair with *Your News Radio Station WIBA* ⇒ a baseball game [probably *Brewers* - Ed.]. Gone at 1915. (MB-IN)
- 1330 WTRB IN Greensburg - 9/11 1640 - With *Carpetland* ad, ID ⇒ C&W music. Fair over WVHL. (MB-IN)
- 1380 WHRS KY Winchester - 9/14 1835 - Suddenly in the clear with local ads and ID. Good signal. (MB-IN)
- 1550 WDLR OH Delaware - 9/14 1935 - Poor with *Western Auto* ad ⇒ ID. Gone at 1937. (MB-IN)

REPORTERS

- SA-MB Shawn Axelrod 30 Becontree Bay Winnipeg, MB R2N 2X9; ICOM R-70 w/PLAM board & 0.5, 2.4 & 4 kHz filter + 4' box loop or 100' lw
- EB-MO Eric Bueneman, N0U1H Hazelwood, MO; Realistic DX-200, Realistic TM-152 (C-Quam), Realistic STA-90, SM-2 (via Prodigy)
- JEL-MO Jefferson E. Lewis Kansas City, MO; Grundig International 400, Radio West Shotgun Antenna | Select-A-Tenna, all indoors and no-brand Chinese Model MR-228 AM/FM/LW/SW barefoot outdoors
- MB-IN Mark Burns Terre Haute, IN; Drake R8 + longwire
- JB-TX Jim Boehm San Antonio, TX; Superadio II + wire up the downspout
- Ed-ID Editor Meridian, ID;

ABBREVIATIONS AND SPECIAL SYMBOLS USED IN DDXD - North

| :parallel with/to ⇒ :to or into :00: on the hour AC:Adult contemporary AP:Associated Press BBD:big band BRN:Business Radio Net C&W:country & western CCR:contemporary Christian radio CHR:contemporary hit radio CID:code ID CL:call letter E2L:easy listening EE:English FF:French GOS:gospel IRN:Interstate Radio Net LSR:local sunrise LSS:local sunset MLB:major league baseball NFL:National Football League NHL:National Hockey League NPR:National Public Radio OC:open carrier POL:political PSRA:pre-sunrise authority PSSA:post-sunset authority QRM:man-made interference QRN:natural interference QTH:location REL:religious ROK:rock 'n' roll RS:regular schedule S:stereo SID:singing ID SRS:sunrise skip SS:Spanish SSB:Star Spangled Banner SSS:sunset skip TC:time check TT:test tones UC:urban contemporary UPI:United Press International

- 600 WMT IA CEDAR RAPIDS-9/13 fair over WREC with KFNS-590 splash with college football report, "Your Sports and Information Leader, 600 WMT" ID, ad for *Gold Bond Medicated Powder*, trivia question, into soft AC (EB-MO)

- 920 WAFS GA ATLANTA-9/13 0258 fair to poor with KARN/KYST with local WGNU off with USA Radio Network News, CLs, local weather forecast, into Christian instrumental music, sixth ex-local heard! (EB-MO)

- 1250 KALO TX PORT ARTHUR-9/12 0100 very good over WEMP/WREN with sign-off, gave address as in Log, business hours as 0930-1800 ELT Monday-Friday, heard in GA on 9/11/89! (EB-MO)

- 1460 KGGO IA DES MOINES-9/11 0231 fair to poor in tight KIRL null (three miles from KIRL's transmitter site!) with "95 KGGO" ID, CDT TC, weather for Des Moines, another ID into AOR. Had this QSLed as KSO in 1983! (EB-MO)

Eric Bueneman (N0U1H), Hazelwood, Missouri

EQUIPMENT: Realistic DX-200, Realistic DX-400, Realistic TM-152, SM-2

73.
Ed



Every year about this time, Jerry Coatsworth from Merlin, Ontario sends in his results from the past DX season's DX Tests, set up by the NRC or IRCA CPCs. At least we hear from him once a year, hi. Jerry's rig is a JRC NRD-525 sometimes correctly hooked to a Realistic CTR-69 tape machine + a 30 foot wire lying on his roof, except the one test heard in the car. Compare Jerry's test loggings with those in your log.

Jerry Coatsworth's Annual DX Testraffanza

- 5 Oct 92 1300 KWCK AR Searcy - 0400-0430 - Taped this test, but nothing heard. Only WOOD and WBPJ. Heard later on the *Crossband* program that test wasn't aired.
- 6 Oct 92 780 WCKB NC Dunn - 0530-0600 - Heard faint CID under WBBM. Verie letter (signed by Ron Tart, GM) and station info in 26 days.
- 12 Oct 92 1320 KXOL OK Clinton - 0300-0330 - Tried to tape this, but forgot to plug cassette recorder into radio.
- 26 Oct 92 1360 WLYN MA Lynn - 0330-0440 - Attempted to tape this test, but switch to Standard Time had me recording one hour too soon.
- 5 Nov 92 830 KBOA MO Kennett - 0100-0200 - Successfully taped this test - heard only WCCO.
- 7 Nov 92 640 WWLS OK Norman - 0100-0130 - Lots of slop from local CFCO, but managed to hear.
- 9 Nov 92 1470 KMFI AZ Sierra Vista - 0200-0500 - Test not heard. But did hear WMBD and WWWW.
- 28 Nov 92 1150 WIMA OH Lima - 0030-0100 - Heard. Received large envelope with full-data QSL card, + letter, station info and stickers in 67 days. V/S Mark D. Gierhart, KE8MB, Director of Engineering.
- 30 Nov 92 570 KCNO CA Alturas - 0330-0400 - Heard many faint CIDs. Received very nice hand-written verie letter signed by Daniel Frey, Chief Engineer, + coverage map in 43 days.
- 7 Dec 92 950 KJR WA Seattle - 0400-0430 - Tried, but plugged patch cord into wrong hole on taper, so . . . nothing recorded.
- 14 Dec 92 960 KNEB NE Scottsbluff - 0200-0230 - Heard about 8 minutes of CIDs. Nice verie letter in 15 days signed by Les Proctor, CE.
- 12 Dec 92 1370 WDRA ME Ellsworth - 0200-0230 - Heard WSPD and a station under them playing Christmas Music including *I'll Be Home For Christmas* at 0215. Guess I heard nothing - no report.
- 14 Dec 92 1280 WABK ME Gardiner - 0200-0230 - Heard faint, rapid CID under WADO and WWOK. Sent report, but as of 6/10 . . . nothing returned.
- 14 Dec 92 1100 KNZZ CO Grand Junction - 0500-0600 - Heard faint CIDs under WWWE. Received nice verie letter from CE Dwight Morgan, + coverage map, post card, etc. Dwight said other Canadian reports came from Medicine Hat, Alberta and Swan River, Manitoba (all in one month).
- 21 Dec 92 960 KGWA OK Enid - 0100-0130 - Heard TTs and CIDs [WFIR. Mailed report on 12/24 asking CE to say hi to Glen Hauser for me. No reply ever received.
- 28 Dec 92 1540 WKGF FL Arcadia - 0200-0230 - No sign of this test, only big signal from KXEL.
- 4 Jan 93 1280 KEAN TX Abilene - 0330-0400 - Detected very faint bits of code and TTs. Due to lack of ambition and post-holiday blues, I didn't bother to report.
- 18 Jan 93 1420 WOC IA Davenport - 0215-0230 - Heard CID and VID. [stations were WHK and unID Ffer. Received bumper sticker, coverage maps, picture of transmitters and verie letter (signed by John Book, Director of Engineering) in 13 days.

540 CJSB
AM STEREO RADIO
1504 Mervale Road
Ottawa, Ontario K2E 6Z5
613 226-5450

- 23 Jan 93 690 KEWI AR Benton - 0300-0330 - Listened to 1st ten minutes and heard nearly continuous CIDs. Received verie letter in 18 days signed by Charlie Bottenberg, DoE. [CBF and WKMR.
- 27 Jan 93 1540 WSMI IL Litchfield - 0100-0110 - Heard tone and rapid CID. Sent SASE with report as requested, but no response received.
- 25 Jan 93 780 KAZM AZ Sedona - 0200-0230 - Surprised to hear TTs under powerhouse WBBM. Received bumper sticker, coverage map, list of reporting DXers (26 in #) and verification letter signed by Joseph P. Tabbach, Pres & GM) in 12 days.
- 31 Jan 93 600 WMT IA Cedar Rapids - 0100-0200 - Heard faint bits of code while driving home from yearly one-month late Christmas party which we attend. [either CFCH or WCC playing oldies. Very nice verification letter from VP of Operations and programming Rick Sellars in 17 days.
- 1 Feb 93 1180 KOFI MT Kalispell - 0400-0500 - Learned of this test via *World of Radio*. Taped, but nothing heard. WHAM and Radio Taino there.
- 6 Feb 93 1070 WANM FL Tallahassee - 0000-0030 - Heard code between songs under CHOK airing *Oldies Coast to Coast*. Verie letter signed by Charles Kinney, CE and bumper sticker in 34 days.
- 7 Feb 93 1480 KLEE IA Ottumwa - 0100-0200 - Heard CIDs fading in and out. Verie letter signed by Thomas A. Palen, President & Gen Mgr and Bill Bishop, program director.
- 13 Feb 93 1590 WWCC PA Honesdale - 0000-0030 - Heard CID during full half hour test. Stronger after 0015 power increase. Also copied VID at conclusion. Also an unID SS station in there. Nice full-data verification letter signed by John Duda, VP & Systems Mgr in 23 days.
- 13 Feb 93 690 WZAP VA Bristol - 0000-0200 - No details of this test found in log book. Received rate card, bumper sticker and verie letter signed by John L. Faniola, Chief Engineer. Note - this response was opened enroute as was resealed with tape over postmark.
- 15 Feb 93 1110 WWNW MA Salem - 0300-0330 - Listened for 10 minutes and heard faint code and WBTE. Vague verie letter signed by General Manager Pat Costa arrived in 11 days.
- 1 Mar 93 830 WKTX OH Cortland - test time 0100-0130 - Began listening at 0028. Heard oldies and several VIDs. Into TTs and code after 0100. Signal = to WCCO. Report sent but no response.
- 1 Mar 93 640 WWJZ NJ Mount Holly - 0000-? - Clearly heard CID and VID, plus talk by announcer to engineer at transmitter site. Original report never answered, but follow-up sent to Ron Musco was QSLed in 8 days.
- 8 Mar 93 740 WVCH PA Chester - 0230-0330 - Easily copied European-style siren test tones. Verie letter signed by David W. Schmidt, Chief Operator.
- 9 Mar 93 1090 KTNS CA Oakhurst - 0300-0400 - Taped this test and heard swishing-type noise repeated. Sent tape, but response via nice personal letter signed by GM & owner Larry Gamble said I did not hear test. KAAY & WBEL there.
- 27 Mar 93 940 WECO TN Wartburg - 0000-0030 - Listened to first six minutes of test and heard rapid code, tones and VID. A SSer and possibly CBM in there. Short full-data handwritten verie letter signed by Carl Stump, President & CE received in 24 days.
- 29 Mar 93 790 WLKW RI Providence - 0000-0015 - Heard very, very faint code. Did not report.
- 19 Apr 93 1330 WVHI IN Evansville - 0100-? - Heard SSB just before 0100, and then test including tones of different pitch. No response ever received.

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Planning to attend a DXers or hobbyist gathering? Include *DX News* in your plans. Upon request, we'll send you a packet of up to 50 recent DXN's to be given free to attendees. Just send a postcard to NRC - P. O. Box 5711 - Topoka, KS 66605. Packets are sent by Book Rate, so please allow 10 days for delivery. Thanks - and tell your friends that the NRC is on the grow!

International DX Digest

Foreign DX Catches. Times are UTC; for ELT, subtract 5 hrs.

The Manitobans are out in force early this season, with some great TP and LA loggings. We hope to see more. Mark Connelly and Jean Burnell have some great logs from Africa to report (drool).

With less time for DX at night, I've sent out a round of follow-up reports to St. Lucia 660, R. Caribes 1090, XEDM 1580, RNE 855, Belize 830. I've been delighted that 4 domestic stations have responded quickly to my follow-ups. If you're getting QSLs from your international DX, why not share the details with others through IXXD!

PAN-AMERICAN DX

- 526 BAHAMAS ZLS Stella Maris, 9/15 0308 - Beacon with code IDs, strong signal bleeding over to CIAO-530. [BC-NH] (Get a tourniquet! - Jim)
- 530 TURKS AND CAICOS R. Visión Christiana, 8/31 0553 - In strong, wiping out usual CIAO, with relay of WWRV's Spanish programming, and mentions of WWRV- 1330 and Turks/Caicos. New station, does not sound like a 100 kW outfit, maybe more like 50 kW? Not sure of ID. [JK-VA] (Already off the air - Jim)
- 535 GRENADA St. George's, 9/16 0038 - US light soul hit "We're In This Love Together"; good. [MC*MA]
- 550 unID, 9/16 0040 - "Guarina" ID, Spanish music; good. [MC*MA]
- 555 ST. KITTS Basseterre ZIZ, 9/16 0036 - Carib. music. & Carib. English announcer; to good peaks through WGAN slop. [MC*MA]
- 580 PUERTO RICO San Juan WKAQ, 9/16 0041 - Spanish news, mention of "primer noticias Puerto Riquense"; atop other Spanish LA & WTAG. [MC*MA]
- 590 VENEZUELA (tentative), 9/16 0044 - YVKL Caracas believed to be the Spanish noted with WEEI nulled. [MC*MA]
- 595 DOMINICA Hillsborough, 9/16 0035 - "Love on the Rocks" by Neil Diamond; very good with WEEI nulled. [MC*MA]
- 600 unID, 9/16 0047 - R. Mundial (something), Venezuela mentions over other Spanish station. [MC*MA] 9/16 0328 - Fair to poor

Jim Renfrew
61 Wilcox Street
Rochester, NY 14607-3832

with "Radio Mundial" ID and pop salsa, including Gloria Estefan's current hit "Mi Tierra", s/off at 0354 with anthem, mostly under WICC. 9/20 0146 - "Nueve cuarenta y seis en Radio Mundial" time check, pop salsa/dance, ID with time check between every song. Not listed in 1993 WRTH. A new station? [BC-NH] (This has to be Venezuelan, because Mundial is a Venezuelan network and because of the UTC-4 time checks. I suspect that one of the two Venezuelan stations has joined the Mundial net, but the question is, which one? - Jim)

- 619.9t COLOMBIA Colmundo Radio, Cartagena, 9/17 0202 - Thought I heard this ID during news program that rose up over domestics for a few minutes. [JR-NY]
- 630t COLOMBIA unID 9/16 0216 - Probably Colombian with fútbol, but which one? [JR-NY]
- 660t ST. LUCIA SLBS Castries, 9/17 0232 - Soca music weak under WFAN. [JR-NY]
- 670 VENEZUELA Caracas YVLL, 9/16 0030 - Loud with baseball game in Spanish, mentions of "Rumbos deportiva". [MC*MA]
- 690 ANGUILLA, 9/16 0050 - English preacher atop Spanish (Venezuela), Portuguese (Brazil), & French (CBF) mess. [MC*MA] (Would have been nice to ID that Brazilian - Jim)
- 700 JAMAICA JBC, 9/6 0230 - Accented English. They were coming in so well I went outside and listened on the car radio, which is where I got the ID "JBC", then into sports. [BW*MB]
- 700 unID, 9/16 0028 - Caribbean English talk here, in jumble. Normally, this could be assumed to be Jamaica. But, little was coming from that far west in the Caribbean at the time (e.g. no Cubans), so I'm thinking that this might have been Linden, Guyana



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instead. [MC*MA] (An interesting possibility - Jim)

- 705 ST. VINCENT Kingstown, 9/16 0027 - fair with Caribbean English male announcer. [MC*MA]
- 770 COLOMBIA 9/6 0110 - RD Colombia ID, Spanish, strong signal coming in on all beverages (European, E/W), not just South bearing. Was parallel 1170. This was a big day in soccer as Colombia beat Argentina (20 people died in Colombia celebrating). Stations seemed to replay the game all night. Presumed Colombians were heard with excited soccer announcers on 770, 810, 870, and 1170. [BW*MB] (This one and R. Coro have been coming in more reliably than Cuba this season - Jim) 9/15 0145 - Nice reception with ad for Corporación Gran Colombia and football chatter. SIO 343. (Burnell-NF)
- 780t BRITISH VIRGIN ISLANDS ZBVI, Tortola, 9/17 2352 - Very weak with Carib accent under CFDR and R. Coro. No sign of WBBM, and CFDR is rather unusual, too. [JR-NY]
- 830 ST. KITTS & NEVIS Charlestown, 8/28 0850-0902 - Gospel programming, woman announcer, dedications including one from Antigua. Interference from unID Spanish station, fade-out with dawn. [DT-JAM]
- 830 VENEZUELA 9/16 0021 - YVLT with romantic Spanish vocal in dogfight with R. Paradise US English preacher. [MC*MA] R. Sensación, 9/20 0251 - Good over others with female vocals, ID as "Sensación ... La Radio". [JR-NY]
- 840 unID (HAITI or ST. LUCIA ?), 9/16 0020 - religious-sounding instrumental, then woman in Creole French. Audio was mushy. [MC*MA]
- 870 DOMINICAN REPUBLIC HVG La Vega, 8/29 0200-202 - ID as "Radio La Vega", Dominican National Anthem by chorus and piano, sign-off, fair. [DT-JAM]
- 880 VENEZUELA R. Mundial (YVYM), Puerto Ordaz, 9/16 0217 - "Radio Mundial" ID (not "Mundial 880" as suggested in WRTH), Loteria del Tachira ad. WCBS QRM, SIO 222. [JB-NF]
- 885 MONTSERRAT, 9/6 0155 - Presumed, with religion in English, weak. [BW*MB] 9/16 0015 - good with mellow female vocal. [MC*MA]
- 895 ST. KITTS & NEVIS VO Nevis, Charlestown, 9/6 0200 - Weak audio

in English. Anthem at 0200, then carrier off at 0202. [BW*MB] 9/16 0014 - Excellent with Carib. English talkshow about community center. [MC*MA] 9/12 0125 - Caribbean-accented DJ, lively music. SIO 333. [JB-NF]

- 900 BARBADOS Bridgetown, 9/16 0059 - relay of BBC show; good over Spanish LA imbroglio. [MC*MA]
- 920 MEXICO? 8/28 0900-0920 - Ranchera music, man announcing between each number, something like "Radio Nueve Veinte" (Radio 9-20). Don't see anything like this in the WRTH, might be XEBM or XEWX. Any ideas? [DT-JAM] (None, there are quite a few Mexican stations listed on 920 - Jim)
- 930 MONTSERRAT Plymouth, 8/30 0030-0130 - Relay Deutsche Welle in English, ID at 0030, giving all shortwave frequencies, and said they would be on 930 until 0600. [DT-JAM]
- 950 DOMINICAN REPUBLIC HIG, Santo Domingo, 8/30 0056-0115 - Varieties of LA music, ID at 0115 as "Radio Popular", no interference, fair. [DT-JAM]
- 970 VENEZUELA R. Mundial (YV??), Barcelona, 9/17 0020-0034 - ID's and jingles as "Radio Mundial", LA mx, TC's and ads including for stores in Barcelona. SIO 242 [JB-NF]
- 1000 BRAZIL R. Record (ZYK522), Sao Paulo, 9/15 0035 - One of a handful of the high-powered Brazilians audible during auroral conditions - ID, Portuguese chatter, Brazilian ballads. SIO 232 [JB-NF]
- 1020 VENEZUELA La Asunción YVRS, 9/16 0010 - Colombian, style accordion music, then Venezuelan ads/mentions. I was looking for the new Turks & Caicos station reported to be testing on this channel, but only the YV was noted. KDKA was "aurora'ed out". [MC*MA]
- 1080 VENEZUELA R. Barcelona (YVQJ), 9/15 0040 - "Super Radio Barcelona" ID's, YV music. Mixing with unID station also in Spanish. SIO 233-2. [JB-NF]
- 1090 COLOMBIA CARACOL station, 9/15 0047-0102 - Tangled mess on this freq with at least 3 Spanish stations beating up WBAL and CBNG, CARACOL ID's and ads at 0100, but couldn't tell which CARACOL outlet. SIO 222-1. [JB-NF]



THE LIBRARIAN BROADCAST SYSTEM
P.O. BOX 184 MONROVIA, LIBERIA

- 1100 ANTIGUA St. John's ZDK, 9/15 0104 - Caribbean accent, ads for Island Motors and the Video Club. Huge signal and huge hets! SIO 422. [JB-NF] 9/15 2348 - mellow soul music; Loud and totally dominant. Hets - TA, 1098 & LA, 1101. [MC*MA] 9/17 0225 - English religion heard briefly in WWWE null. At 0243 they had an ad for Jamaica, probably a travel ad of some kind. [JR-NY]
- 1130 UNID 9/6 around 0200 - IDed as "Radio Lobos", complete with a wolf howl! [BW*MB] (I don't have this listed anywhere, can anyone help Barry with this? - Jim)
- 1160 BERMUDA Hamilton VSB3, 9/15 2353 - BBC show about pop music (// 1197, 5975, 6175 et al). Loud; slamming WSKW into the background. [MC*MA]
- 1165 ANTIGUA St. John's, 9/15 2339 - Excellent with preaching in English, gave program schedule. [MC*MA]
- 1195.2 unID, 9/15 0109 and thereafter - Tiny amount of audio, some music, but too weak to discern language much less ID. I was looking for the low-powered Haitian split that's listed near here. (Also noted on subsequent evening at same unusable level.) SIO 141. [JB-NF]
- 1200 VENEZUELA Caracas YVOZ, 9/15 2324 - Caracas mentions/ads, excited Spanish talk; strong, chewing up semi-local WKOX. [MC*MA]
- 1230 BERMUDA ZFB, Hamilton, 9/15 0024-0032 - Likely they with relay of newsmagazine program from BBC WS (thus // 6175). SIO 232. [JB-NF]
- 1260 COLOMBIA HJ DV Ibagu, 9/6 0402-0446 - LA music, oldies, "Colombia" mentioned several times and "CARACOL", fair. [DT-JAM]
- 1320 unID, 9/15 0115-0120 - 2 stations in Spanish mainly under CKEC, one may have been Ecuadorian from a promo that faded up... "este domingo en 'Buenos Días Ecuador'". No ID, though! SIO 222-1. [JB-NF] (If only ... Jim)
- 1350 VENEZUELA R. Guanipa (YVZZ), El Tigrito, 9/15 0121-0126 - Baseball play-by-play of a "liga nacional" game, lots of ads between innings. SIO 322. [JB-NF]
- 1360 unID, 9/15 0204-0210 - Woman in Creole with religious diatribe, Spanish station faded in and out, was hoping for Haiti but no ID. Connelly suggested to me via E-mail that WLYN is also a possibility. SIO 232. [JB-NF] (I would suggest the

same, having heard this station with Creole programming while I was in the Dominican Republic in March of this year - Jim)

- 1405 GRENADA Harbour Light of the Windwards, Carriacou, 9/15 0004-0023, 0129-0132 - NEW FREQUENCY, usual fare of religious pgms, ID before sign-off with anthem. Now quite easy without needing to phase CBG. SIO 333-2. [JB-NF] 9/15 2310 - Harbour Light of the Windwards very good to excellent with English preaching. This went from nearly impossible on crowded 1400 to a "piece of cake" on split 1405. [MC*MA] (You CAN have your cake and eat it too! - Jim)
- 1420 COLOMBIA HAAP Cartagena, 8/14 0830-0900 - LA music and talk, ID in English!, poor with interference from unID Spanish station. [DT-JAM]
- 1430 PUERTO RICO WNEL Caguas, 8/14 2341-2400 - LA music, mentions of Puerto Rico and Radio Tiempo, interference from unID Spanish station, fair. [DT-JAM]
- 1430 VENEZUELA R. Satelite (YVNB), Guacara, 9/16 0134-0153 - Horse-racing hype, Timechecks frequently with a chime sound-effect and lots of ads, including Loteria del Tachira in every ad string, LA music. QRM from Cuba, SIO 222. [JB-NF]
- 1430 CUBA R. Surco?, Moron, 9/16 0134-0153 - Over-under Satelite with program of Cuban music and cultural announcements hosted by man and woman. Often the Cubans are easy to pick out of a mess because of the non-maniac Spanish program presentation. SIO 222. [JB-NF] (Also the lack of advertisements - Jim)
- 1500 VENEZUELA R. Dos Mil (YVRZ), Cumana, 9/14 2358 - Clear ID's, Venezuelan music. SIO 343. [JB-NF]
- 1520 PUERTO RICO R. Aeropuerto (WRAI), 9/17 0008 - Tuned in to 2 very clear ID's, then LA ballad. SIO 343. [JB-NF]
- 1550 MEXICO XENU Nuevo Laredo, 8/19 2227-2335 - Ranchera music, poor, interference from unID Spanish station. [DT-JAM]
- 1560 GUATEMALA TGVE Guatemala City, 8/20 0025-0038 - Religious talk and music, poor. [DT-JAM]

- 1610 ANGUILLA The Valley, 9/15 2302 - Caribbean Beacon excellent with US religious show. [MC*MA]

Jeff speaks: "International DX has been pretty dead here most of the spring and summer. I had a few loggings from May/June, but they are very old. Cuban interference has also lowered. I am not sure if this is because Cuba has cut power, conditions are poor, or a combination of both."

TRANS-PACIFIC DX

- 774 AUSTRALIA 9/6 1145 - English audio with Australian accent. Mentions of Australia. Talking about buying stocks. Faded at top of hour, of course. Came back up with news at 1203 and mentions of Alcohol Awareness Week. Other frequencies with brief audio included 756, 765, 828. [BW*MB]
- 1008 UNID 9/6 0610 - Het noted, developed audio at 0638, English. Gave temperature as 25 degrees, advertisement with street address given, but haven't reviewed tape yet to see if it gives any clue to ID. I'd say Australia, maybe New Zealand. [BW*MB]
- 1017 TONGA 9/6 0610 - Het noted, 0628 music. 0704 woman with English news, "Indonesia Report". Still with news in English 0717 before news announcer in unID language which I guess was Tongan. 0720 garbled announcement with word "Tonga" in it. [BW*MB] (Very nice, I hope your tape came out well - Jim)

Barry speaks: "The first DXpedition of the season produced lots of interesting signals, but enough strategic fades to make IDs scarce. As well, the soccer frenzy in Colombia that night seemed to make the Colombians forget to ID even at the top of the hour." (Don't worry, if they'd remembered to ID the signal would have faded anyway! - Jim)

TRANS-ATLANTIC DX

- 531 ALGERIA Ain-El-Beida, 9/16 0039 - chant, not much 530 QRM (Turks & Caicos off?) [MC*MA] (Yes Turks and Caicos is now off, as reported in the previous IDXD - Jim)
- 603 MADEIRA (tentative), 9/16 0034 - talk sounded more like Portuguese rather than usual Spanish. [MC*MA]

- 621 CANARY ISLANDS Santa Cruz, Tenerife, 9/16 0033 - fast festive Spanish vocal; Excellent, crushing the 620 stations into a feeble background het. [MC*MA]
- 693 AZORES Terceira, 9/16 0029 - Portuguese jazz, pop music; poor. [MC*MA]
- 711 MOROCCO Laayoune (tentative), 9/16 0052 - potent het against WOR/YVKY; Morocco far more likely than France given the aural conditions at the time. [MC*MA]
- 747 unID, 9/16 0025 - Burkina-Faso the most likely source of stiff het against Caracas, 750. [MC*MA]
- 765 SENEGAL Dakar, 9/15 2250 - man chanting at low modulation level on an extremely strong carrier. 9/16 0053 - Like a local with African vocal & drums. [MC*MA]
- 837 CANARY ISLANDS Las Palmas, Gran Canaria, 9/16 0017 - Spanish vocal; fair. [MC*MA]
- 855 SPAIN Murcia et al., 9/16 0056 - Spanish vocal; fair. This was about as far north as any TA heard this night. [MC*MA]
- 891 ALGERIA Algiers, 9/16 0058 - good with male Arabic vocal. [MC*MA]
- 999 SPAIN Madrid, 9/16 0107 - man in Spanish; fair. [MC*MA]
- 1071 SPAIN Euskadi Irratia, Bilbao, 9/19 2127 - Massive signal with Beethoven symphony; // 1161 was weak. SIO 444. [JB-NF]
- 1080 MOROCCO RTV Marocaine (A), Casablanca, 9/20 - Arabic music under the Spanish SER net str(s). // 1044, which was also QRM'd by SER. SIO 222. Time of 1080 logging will be provided in a subsequent correspondence. [JB-NF]
- 1115 ANGOLA (tentative), 9/16 0005 - fair-strength carrier and bits of audio on old-plan channel during good African opening. [MC*MA] EP do Kuanza-Sul, Sumbe, 9/19 0242 - Man in Portuguese, American rock music. Other Angolans were evident on 1502 and 1088, too, but 1115 was the best. SIO 232 [JB-NF]
- 1134 SPAIN COPE synchros, 9/9 0131 - Spanish network telephone phone-in pgm. Splatter from CBI (1140), SIO 333. [JB-NF]
- 1161 BULGARIA Horizont Program, Stara Zagora, 9/19 2128 - Man and woman chat in Bulgarian, English pop song. Rapidly fading and losing the freq to Euskadi station, SIO 333. [JB-NF]

- 1170 PORTUGAL RDP R. Comercial, Vila Real, 9/19 2143 - In the clear with Portugues rock // easy 1035 (the other easy outlet on 1062 is off). SIO 344. [JB-NF]
- 1179 CANARY ISLANDS Santa Cruz, Tenerife, 9/15 2344 - fair with man in Spanish. [MC*MA]
- 1197 LESOTHO, 9/15 2357 - GOOD SIGNAL!! BBC English program // Bermuda, 1160 & Sackville 5975 / 6175. Great at top of the hour (2359, 9/15 to 0001, 9/ 16) - 'Lilybolero' music., pips, then BBC news. 9/16 0103 - good with BBC news. Looped slightly south of Senegal. This is my farthest MW DX ever at 7948 miles! The auroral activity plus the coastal QTH were providing superb African conditions. [MC*MA] (What can I say? Excellent! - Jim) 9/16 0104-0106 - Very clear, unusually QRM-free signal with BBC WS news, "Outlook" from 0105, // 6175. SIO 343-2. [JB-NF]
- 1197 MOROCCO / LESOTHO, 9/15 2325 - Arabic chant over/under BBC English program; slopped by WKOX / YVOZ, 1200. [MC*MA]
- 1215 ENGLAND Virgin R. synchros, 9/9 0137 - Brit-accented DJ intro'ed music by Duran Duran. Over Spain, SIO 333 [JB-NF]
- 1313 ANGOLA EP da Huila, Lubango, 9/19 2150 - Pop mx and man in Portuguese. Het from 1314. SIO 232 [JB-NF]
- 1325 unID, 9/15 2313 - most likely Morocco - carrier in WRCA, 1330 / CKEC - 1320 slop. [MC*MA]
- 1349 MAURITANIA Nouakchott, 9/15 2256 - African music. / chanting; to very strong peaks. [MC*MA]
- 1367 ANGOLA Luanda, 9/16 0002 - peaking up well with a-cappella shouting vocal. [MC*MA]
- 1503 AZORES (tentative), 9/15 2308 - maybe the AFRTS station here with bits of what sounded like English talk & US pop music. Hetted by a 1502 African and slopped by WSSH-1510 (now back on with English talk). Some T-storm QRN, too. [MC*MA]
- 1530 SÃO TOME VOA relay, 9/16 2157-2159+* - Faded up with World Report in EE. At 2159 announcement re how to get a VOA sked, and then off, leaving the freq. to Vaticana. SIO 232. [JB-NF] (Very nice - Jim)
- 1544 WESTERN SAHARA (MOROCCO), 9/15 2300 - pop-style (jazz-influenced) instrumental, loud!

These guys always have a killer signal out here at the Rockport DXpedition site, but are just poor to fair at home an hour's drive away. [MC*MA]

1585.2 SPAIN SER net stn, 9/16 0229-0233 - Station off frequency, SER net programming // 1584 and 1575. I assume this is one of the stations that is nominally on 1584. Heard also the next evening, but NOT heard on 9/20. SIO 242. [JB-NF]

STATION NEWS

SURINAME - Radio Radika 670 kHz, Paramaribo was heard testing from 8/15 // 98.3 FM. Station had been closed by the military in 1982, when it operated on 640 kHz. English noted 1800-1900 on Sunday. [Suricall 8/21/93 via Play DX 755] (My 1983 WRTH shows this with 25 kW, 0830-0230 (0330 Sa), mainly Hindustani, but this info is obviously 10 years old - Jim)

QSL INFORMATION

DOMINICAN REPUBLIC: HJ/B address as in WRTH, signed by Ing. Radhames Catellanos, Director of Ingenieria. [DT-JAM]

CONTRIBUTORS

- [BW*MB] Barry Wasyluk, DXing from Lewis MB (with George McLachan and Andy Davidson); R-8, NRD-535, and beverages.
- [JR-NY] Jim Renfrew, Rochester NY; Sony 2010, HQ-180, Radio West Loop, Alpha Delta Sloper.
- [MC*MA] Mark Connelly WAIION DXing from Rockport MA; Dealistic DX-440, RTL-2 Remotely-Tuned Loop with MWT-3 Regenerative Tuner / Controller
- [JK-VA] Jeff Kitze, Boydton VA; Sony FD-555 TV/AM/FM Cassette, 100% barefoot.
- [BC-NH] Bruce Conti, Nashua NH; R70, DX400, MWDX-5, two 3 meter wires.
- [JB-NF] Jean Burnell, St. Johns NF; Icom R-71A with a 30 foot attic wire.
- [DT-JAM] Don Trelford, St. Anns Bay JAMAICA.



RADIO SAN CARLOS

Graveyard DX Totals

Bill Hale
495 Creekview Drive
Meridian, ID 83642-3241

Total stations logged on graveyard frequencies

Date of Last Update: August 10, 1993

DXer and Location(s)	1230	1240	1340	1400	1450	1490	Total
GENE ALLEN Vallejo, CA	76	98	116	117	130	102	639
STAN MORSS Boxford, MA	84	114	101	102	108	98	607
DON KASKEY Galva, IA	85	77	104	105	121	93	585
CHARLES REH Leamington, ON	64	77	88	67	79	84	459
BOB KNOX Newton, NJ	50	80	64	73	86	50	403
HANK HOLBROOK Chevy Chase, MD*	28/3	64/2	79/4	53/1	68/5	53/9	345/24
FRANK WHEELER Erie, PA	58	81	63	62	65	32	361
ROY MILLAR Bellevue, WA	66	57	57	49	57	41	327
STEVE FRANCIS Alcoa, TN	47	43	38	49	58	61	296
CARL DABELSTEIN Omaha, Lincoln, Overland Park, KS	45	51	54	50	55	31	286
DON LYNCH Various Locations, MA	50	44	45	33	42	44	258
DON TRELFOED Various Locations, ON*	31/7	24/6	41/16	38/10	37/7	30/7	201/53
ROBERT KRAMER Chicago, IL	32	19	50	54	61	29	243
ERNIE WESOLOWSKI Omaha, NE	40	48	44	45	51	15	243
RALPH SPERRY Fairfield, CT	29	46	44	21	37	39	216
RUSH EDMUNDS Various Locations, NJ	23	35	32	38	37	48	213
JOE KURETH Uniontown, MD	29	34	40	29	35	36	203
JEFF FALCONER Clinton, ON	26	35	24	37	37	27	196
TIM KERFOOT Metro Toronto, ON	22	28	34	28	26	43	181
ALAN IMPRESCIA New York, NY	29	30	27	32	28	34	180
ANDY RUGG Nuns' Island, PQ	30	29	32	23	25	34	173
DON VOORHIES Oswego, NY	31	19	28	26	25	38	167
DAN PHILLIPS Jacksonville, AL	25	19	37	25	24	36	166
JOHN KROMKA Montville, NJ	26	33	26	22	26	32	165
MIKE CSORBAY Canfield, ON	9	29	27	16	34	44	159
SHAWN AXELROD Winniprg, MB	28	10	27	31	25	35	156
RON MUSCO Hartford, CT	21	25	21	25	27	24	143
ROY MILLAR Marysville, WA	13	13	25	39	26	20	136
JOHN WILKINS West Des Moines, IA	23	25	26	22	16	21	133
RICH EDDIE St. Louis, MO	15	20	22	30	23	22	132
CHRIS LUCAS Various Locations	20	13	13	26	27	32	131
DAVE FOX Reading, PA	15	24	16	23	24	27	129
LAURIE BOYER Invercargill & Dunedin, NZ*	16/0	15/0	3/0	32/2	32/5	20/2	118/9
DON KASKEY Sacramento, CA	15	17	22	25	29	17	125
ESA HÄNNINEN Various Locations, Finland	13	18	20	23	16	35	125
GARY ATKINS Louisville, KY	21	8	29	21	18	26	123
FRANK MERRILL Various Locations	16	18	17	20	26	26	123
GEOFFREY FARRISH Memphis, TN	17	21	20	22	23	20	123
NEIL DICKERSON Sharptown, MD	21	19	32	16	19	15	122
DAVE SCHMIDT New Castle, DE	17	24	21	16	12	23	113
BILL HARDY Aberdeen, WA	18	22	17	18	18	18	111
RICK CARR Bloomington, IL & Austin, TX	12	18	24	16	20	19	109
MIKE HAWK Omaha, NE	24	14	14	16	29	11	108
SHARON SKOWER Enfield, CT	12	19	25	21	15	15	107
TOM SUNDSTROM Willingboro, NJ	13	26	17	23	20	8	107
HARRY HAYES Gouldsboro, PA	15	21	17	13	21	19	106
NIEL WOLFISH Toronto, ON	10	18	17	11	20	30	106
JOHN MALICKY Pittsburgh, PA	7	15	16	14	24	27	103
MIKE SANBORN Bellflower, CA	14	16	18	21	18	15	102
TIM HALL Chula Vista, CA	16	13	17	16	16	12	90
JOHN WILKINS Wheat Ridge, CO	12	12	13	22	14	16	89
LAURA McCUSKER NY, PA	11	22	10	17	14	14	88

NANCY HARDY	Abodeen, WA	16	20	13	11	13	14	31
RODNEY VALDRON	Petit Rocher, NB	16	21	7	9	17	17	87
RON BAILEY	Shelby, NC	11	21	18	5	11	17	83
JOE KURETH	Southern Pines, NC	13	12	13	13	17	12	80
JIM HILLIKER	Anaheim, CA	11	12	15	13	16	12	79
NIEL WOLFISH	Winnipeg, MB	11	2	10	22	19	15	79
MIKE JEZIORSKI	Brookfield, IL	13	15	12	16	11	11	78
JIM RENFREW	Rochester, NY	16	10	10	12	12	13	73
RICK DAU	Iowa City, IA	7	9	14	14	8	19	71
JEFF TYNNAN	Parker, CO	11	11	6	14	16	10	68
BILL HALE	WI, IL, ID, FL, TX, NY, CA	12	12	9	8	10	15	66
MIKE JEZIORSKI	Detroit, MI	9	16	13	2	9	15	64
RICK DAU	Oakland, IA	8	10	8	13	14	10	63
DAVE BRAUN	Falls Church, VA	14	16	6	11	4	11	62
STEVE GOOZOVA	Binghamton, NY	14	14	7	11	14	9	61
WAYNE HEINEN	Colorado Springs, CO	8	6	19	17	3	8	61
OLLE ALM	Stockholm, Hårnösand, Abisko, Karesuando & Göteborg, Sweden	5	7	5	19	12	13	61
JERRY ROBERTSON	Croswell, MI	16	8	6	7	10	13	60
BRETT HANAVAN	Chula Vista, CA	13	3	10	11	14	6	57
GREG CONIGLIO	Clarence, NY	3	12	7	8	15	11	56
DAVE YOCIS	Fairfield, CT & East Lansing, MI	11	9	9	12	4	9	54
MIKE KNITTER	Cambridge, WI	9	9	6	8	11	10	53
STEPHEN MCINTIRE	Des Moines, IA	10	15	9	12	4	9	49
LES CARPENTER	El Toro, CA	8	6	8	8	10	6	46
RUSS EDMUNDS	Syracuse, NY	12	7	7	5	6	8	46
WAYNE HEINEN	Orchard Park, NY	13	10	8	2	6	5	44
DEBRA HIDDEN	Orlando, FL	6	9	7	6	5	11	44
PAUL MOUNT	Teanock, NY	5	8	8	8	8	5	42
KEN ONYSHUCK	Hazel Crest, IL	6	7	6	8	10	5	42
MIKE HARDESTER	NAS Miramar, CA	6	6	3	7	11	5	38
STEPHEN PONDER	Bossier City, LA	6	5	6	6	7	7	35
MORRIS SORESENSEN	Scarborough, ON	2	9	2	7	6	7	33
ERIC McINTOSH	Invercargill, NZ	0	3	1	15	7	7	33
GEORGE SANTULLI	Cranford, MA	-	-	33	-	-	-	33
ERIC BUENEMAN	Hazlewood, MO	8	7	4	5	3	4	31
BILL LACKEY	Kingsville, TX	6	9	4	3	5	4	31
MORRIS SORESENSEN	Leaf Rapids & God's Narrows, MB	5	6	5	7	4	4	31
J.W. BAY, Jr.	Drexel Hill, PA	30	0	0	0	0	0	30
DAVE BRAUN	Dover, DE	3	6	6	4	5	5	29
MIKE KNITTER	Rapid City, SD	5	3	3	4	6	8	29
MORRIS SORESENSEN	Port Carling, ON	2	5	5	6	4	6	29
RICHARD B. WOOD	Hilo, HI	5	5	8	4	4	2	28
JEFF KOSNETT	Charleston, WV	5	3	6	3	4	3	26
WAYNE HEINEN	Aurora, CO	4	6	0	5	6	4	25
GENE NIX	Billings, MT	3	5	5	5	4	3	25
JEFF KOSNETT	Chicago, IL	5	3	6	3	4	3	24
MIKE HAWK	Evergreen, CO	5	4	1	6	3	5	24
CHRIS CUOMO	Verona, PA	2	4	5	3	5	2	21
PAUL MOUNT	Nelsonville, OH	4	4	2	3	3	5	21
DON DAVIS	Warner Robins, GA	5	4	3	2	4	2	20
PAUL SWEARINGEN	Moran, KS	5	3	2	2	2	5	19
RON RYCHALSKY	Bridgeport, CT	3	2	4	3	2	3	17
LES CARPENTER	Sandy, UT	2	1	0	2	5	5	15
SHARON WATERMAN	Southwick, MA	-	-	-	-	5	8	13
RICHARD TURNER	N. Yarmouth, MA	2	3	1	1	2	3	12
MORRIS SORESENSEN	Kemptville, ON	2	1	2	1	3	2	11
SHAWN AXELROD	Orlando, FL	1	2	1	4	1	1	10
DOUG SMITH	Madison, WI	2	1	3	2	2	0	10
SHAWN AXELROD	Edmonton, AB	1	0	1	1	1	1	5
DON TRELFO	Runaway Bay, JMC	1	1	1	1	1	2	7
DALE PARK	Irvine, CA	1	1	1	1	1	0	4
DALE PARK	Various Locations, HI	0	1	0	1	1	0	3
SHAWN AXELROD	Swan River, MB	0	2	0	0	0	0	2

* Totals are for Before/After 1960

- Unreported

Verification Signers

Signatures and other information received upon request

Wayne Heinen

4131 S. Andes Way

Aurora, CO 80013-3831

Freq	Call	Signer	Contributor	940	CBMq	Carol Hermann	RT
530	CIAOtm	Rick Sargent OpM	ES/BH	940	WMEXl	Kevin Potter CE	ES
530	KNJR837	Michael L. Winn - VA Dept of Transportation, 1401 E. Broad St. - Richmond, VA		940	WMIXru	Tom Sheldon PD	RT
	23219	HH		950	WXGH	Nancy N. Folds	BH
530	KNJR839	Michael L. Winn - VA Dept of Transportation, 1401 E. Broad St. - Richmond, VA		970	CBZLq	Rose Arsenault	RA
	23219	HH		980	WWNN	Tom L. Manley ProdD	DT
530	KNJR840	Michael L. Winn - VA Dept of Transportation, 1401 E. Broad St. - Richmond, VA		1010	CFRBq	Stephen Canney OADX	BG
	23219	HH		1010	KBISm	Norm Laramée CE	DT
530	TAS	U/U - FL Dept of Transportation, 5301 NE 39th Ave - Gainesville, FL		1040	WMTXlhu	Jonathan Pinch P/GM	RT
	32609	HH		1040	WSKEpu	Sandra King M	ES
530	WNAN682	Michael L. Winn - VA Dept of Transportation, 1401 E. Broad St. - Richmond, VA		1040	WYFX	Gary Lewis P	DT
	23219	HH		1060	WBIVu	Robert L. Tarpin M	ES
530	WNKW629p	U/U - Charleston Police Dept- Charleston SC		1070	WKOKI	John W. Keller VPoE	BG
	HH			1110	WBTq	U/U CE	BG
540	KNAKlmz	Douglas L. Barton O/E	MS	1110	WWRXp	Rick Everett PD	ES
540	WWCSpu	P. Day	ES	1150	WGBNI	Howard Williams SisM	BH
560	WEAZI	Herb Fayer M	BG/RA	1170	WCTFlu	John Ramsey CE	ES
570	WHNZ	Gordon L. Byrd PD	DT	1170	WDISI	Kevin Convery GM	BH
590	CKRSI	Daniel Dufour DoT	OA	1180	KKARlmbz	Allen Sherrill CE	MS
620	WSUN	David Solmske CE	DT	1180	WMTYI	Paul Knight E	ES
620	WSUNb	David Solinski CE	BG	1200	WCHBpu	Tony Simpson ACE	ES
630	CFCYp	Michael Brooks	ES	1200	WDCQ	Rosey Williams OpM	DT
670	WIEZlzu	David N. Supplee	ES	1210	WOGLq	U/U	BG
690	WPDQl	Jim Hughes SisM	ES	1220	WKNRq	John R. Hovanec CE BH/RT/ES/HH	
690	WPHEp	Rev. Jose A. Cintron	ES	1220	WXCTlm	Jacqueline Talavera PAI	BH
700	CHSJlz	Eugene Boles TM	ES	1230	KKPC	Lee Douglas M	WH
740	WPNZ	Drew Storie	DT	1230	WERlpu	Mark Urso PD	ES
780	KAZMlmbz	Joseph P. Tabback P/GM	MS	1230	WODEpu	Jay Mitchell PD	ES
780	WBBMI	Chris Berry NxD/PD	BG	1270	WLBRLq	Glenn Waybright CE	RA
790	CFANI	U/U GM	ES	1270	WMIZp	Joe Patti Ops	HH
790	WTARI	Keith O'Malley DoE	BG	1280	WCPMlm	J. George Bibb P/GM	RT/RA
800	CKDR	Bruce Walchuk M	WH	1280	WHVRq	U/U CE	BG
810	TIS	Roger Nichol- Disney World		1280	WPTYrm	U/U	RA
	Box 10000 - Lake Buena Vista, FL 32830		HH	1300	WLXGlu	Wayne Long DoE	RT
810	WQIZlu	Bob Brown M	RT	1310	KAAMlmz	Hue Beavers CE	MS
820	CHAMlbu	Kelly M. Holroyd ExPA	RT	1310	WSSJlu	Pat Delsi GM	ES
830	CFJRlzu	Adele McCann SisM	ES	1320	WJASru	Dom Piazza	ES
830	KBOAq	Larry Anthony CE	HH	1320	WQIK	Doug Walker ACE	DT
830	WKTlXlm	Jerry Cory PD	BH	1340	KYC	Kent G. Smith O	WH
840	WHASq	Charles R. Strickland CE	BG	1340	WPBR	Rick Riecke CE	DT
850	WNISlhbzu	Dave Morgan A	RT/ES	1350	WBSKI	Mike Chandler DoE	ES
870	WFLOI	Gene Eike GM	RA	1370	WPAZlu	Jay Darren PD	ES
870	WKARlu	Curt Gilileo PM/NxD	RT	1370	WXXluz	John Bell M	ES
900	KBIFlmbz	Tony Donato	MS	1380	WKDMlm	Richard N. Ross CE	BH/ES
910	WNEZlz	Bobby Gray CE	BH	1400	WBSA	Terry Welsh	DT
920	WHJllu	John Carpilio PD/NxD	RT	1410	WPOPI	Jim Esposito VP/GM	BH
920	WTTMlm	Mark Mostowrt GM	BH	1430	CJCLluz	Wally Lennox DoE	ES
				1440	KVONqlmz	Michael Martindale DoE	MS
				1440	WRROlzu	Robin E. Best GM	ES
				1440	WZYXlm	Mary Lou Garner O/M	ES
				1460	WBETlzu	Peter Rivoira PD	ES
				1460	WCMBlu	Dan Steele PD	BH

1460	WEMRlb	Bob Graham CE	ES
1460	WGNAlmb	Jack Shafer CE	BH
1480	KLVL	Gustavo Perez M	DT
1480	WZRCqu	U/U Eng Dept	ES
1510	WJICt	Ben Ferguson PD	ES
1520	WGAMpu	Edward Skutnick O	ES
1520	WKVQ	Dennis P. Helmreich O/GM	DT
1550	WLXur	U/U OIM	ES
1550	WMDHL	Tim George PD	ES
1550	WNTNfu	Leo Sullivan Jr. CE	BH
1550	WTYRI	Greg Schaeffer O	ES
1555	R. Cayman	Loxley Banks DofBC	DT
1560	WMOMpu	U/U	HH
1590	WAKRq	Glen Foldessy CE	BG
1600	WLNGI	Paul Sidney P	ES
1610	KPC747	James Burnett CTranger -	
Colonial Historical Park - P.O. Box 210, Yorktown,			
VA 23690 HH			
1610	TAS	U/U - FL Dept of	
Transportation, 5301 NE 39th Ave - Gainesville, FL			
32609 HH			

1610	TISp	Tom Anderson - JFK Space	
Cntr, Admin Office - Cape Canaveral, FL 32815 HH			
1615	GCC1q	U/U - Cutlerscost Radio, BT	
Radio Sta. - Whitley Bay, Tyne & Wear England HH			
1620	TA5p	Bill Keish D - CT Trans	
Commission, 24 Wolcott Rd - Wethersfield, CT			
06109 HH			
1620	WMNTp	U/U - Orlando Arena Orlando FL	
(10w) HH			

Contributors

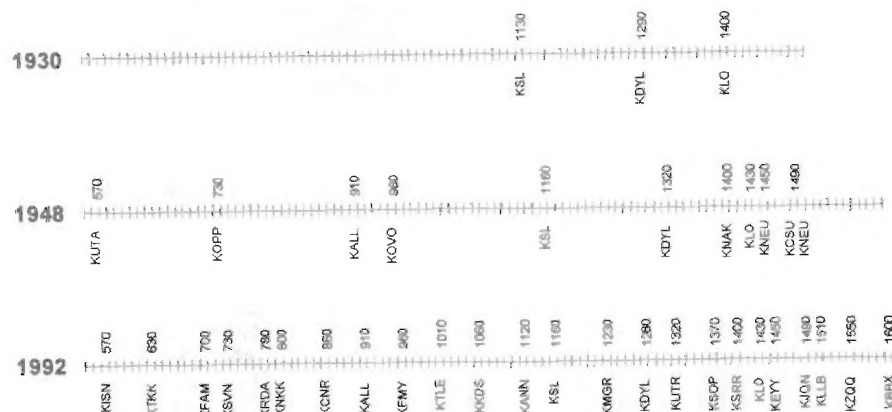
DT	Don Trelford	Jamaica
OA	Olle Alm	Sweden
BH	Bob Harrison	NJ
RT	Robert Tiara	NC
BG	Bob Gilfert	DC
HH	Hank Holbrook	MD
ES	Elliot Straus	NJ
MS	Mike Sanburn	CA
RA	Ray Arruda	MA

Now and Then John D. Bowker

Dial changes in AM markets, from 1930 to 1948 to 1992

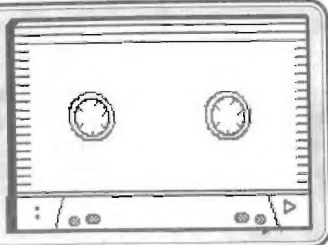
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Geomagnetic Summary

Phil Bytheway

9705 Mary NW

Seattle, WA 98117-2334

High "A" values indicate possible auroral conditions

Geomagnetic Summary June 18 1993 through August 11 1993

Date	FLUX	A	K	SA	GEO	OTHER
6/18	-	-	-	-	-	-
20	91	3	0	low	quiet	-
21	91	1	0	very low	quiet	-
22	97	2	2	low	quiet-unsettled	-
23	109	12	4	low	unsettled	-
24	121	23	3	high	unsettled-active	maf 0735
25	119	17	2	high	unsettled-active	maf 0322
26	122	10	1	moderate	quiet-unsettled	-
27	128	6	1	moderate	quiet	-
28	124	4	2	low	quiet	-
29	123	10	2	low	quiet-unsettled	-
6/30	116	8	3	low	quiet-unsettled	-
7/1	108	18	5	low	unsettled-mis	-
2	110	23	4	moderate	unsettled-mis	-
3	111	15	3	moderate	quiet-active	-
4	107	8	2	moderate	quiet-unsettled	-
5	101	2	0	low	quiet	-
6	95	5	3	low	quiet	-
7	93	10	2	low	quiet-unsettled	-
8	93	14	3	very low	quiet-active	-
9	90	11	2	very low	quiet-unsettled	-
10	86	10	5	very low	quiet-mis	-
11	83	22	1	very low	quiet-active	-
12	86	9	3	very low	quiet-unsettled	-
13	87	8	1	very low	quiet-unsettled	-
14	93	0	3	very low	quiet	-
15	93	3	1	very low	quiet	-
16	97	1	0	very low	quiet	-
17	99	1	0	low	quiet	-
18	100	3	2	very low	quiet	-
19	101	2	1	low	quiet	-
20	102	12	3	very low	quiet-unsettled	-
21	105	13	3	very low	quiet-unsettled	-
22	108	11	2	very low	quiet-unsettled	-
23	110	5	1	low	quiet	-
24	106	2	2	very low	quiet	-
25	102	2	3	very low	quiet	-
26	104	4	0	very low	quiet	-
27	103	7	2	low	quiet-unsettled	-
28	102	5	1	very low	quiet	-
29	100	14	1	very low	quiet-active	-
30	98	5	2	very low	quiet	-
7/31	96	3	1	low	quiet	-
8/1	100	0	1	low	quiet	-
2	101	1	1	low	quiet	-
3	98	3	2	low	quiet	-
4	96	16	4	low	unsettled-active	-
5	94	17	4	low	quiet-active	-
6	94	18	3	very low	quiet-active	-
7	91	12	3	very low	quiet-active	-
8	91	10	3	very low	quiet-unsettled	-
9	96	11	1	very low	quiet-unsettled	-
10	102	6	2	low	quiet	-
8/11	108	3	0	moderate	quiet	-



Geomagnetic activity
 maf major flare
 mas major storm
 mif minor flare
 mis minor storm
 pca polar cap absorption
 SA solar activity
 spe satellite proton event
 swa strat warm alert
 ss severe storm

Date	FMUX	A	K	SA	GEO	OTHER
8/11	108	3	0	moderate	quiet	-
12	-	-	-	-	-	-
13	99	5	0	low	quiet	-
14	92	1	1	low	quiet	-
15	91	2	5	low	quiet mis	-
16	90	34	7	very low	active mis	mis 1200
17	93	33	4	low	quiet-active	-
18	92	19	3	very low	quiet-active	-
19	92	13	2	very low	quiet-unsettled	-
20	92	9	0	very low	quiet-unsettled	-
21	95	5	0	very low	quiet	-
22	94	4	2	very low	quiet	-
23	93	2	0	very low	quiet	-
24	91	3	0	very low	quiet	-
25	89	1	1	very low	quiet	-
26	80	5	1	very low	quiet	-
27	88	16	2	very low	unsettled-active	-
28	88	7	3	very low	quiet-unsettled	-
29	90	9	2	very low	quiet-unsettled	-
30	89	3	1	very low	quiet	-
8/31	89	2	0	very low	quiet	-
9/ 1	86	0	0	very low	quiet	-
2	81	3	4	very low	quiet	-
3	80	30	5	very low	active mis	mis 1200
4	79	23	3	low	active	-
5	80	12	2	very low	quiet-unsettled	-
6	79	10	2	very low	quiet-unsettled	-
8/ 7	78	10	3	very low	quiet-unsettled	-

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KIWA MW Loop Antenna Review ... by Phil Bytheway

KIWA Electronics, of Yakima WA has recently made available its first MW loop antenna. Over a year of research and experimentation went into both the physical and electronic design. It employs smooth Teflon bearings for rotation and tilt, as well as a geared tilt mechanism with little or no backlash. The pre-amplifier includes adjustable regenerative feedback for increased selectivity.

The loop stands 16 1/2 inches high and is mounted on a sturdy wood base (you need to attach the loop to the base after unpacking). Workmanship is excellent, the overall black finish makes it look quite sharp (great for those into aesthetic DX equipment). The lettering and graphics give nostalgic hints of equipment from yesteryear. Fully assembled, the weight is approx 14 pounds. A compass is mounted to the center top of the loop. An 8 foot/5 conductor cable leads from the loop to the control box, where the tuning, gain and regeneration controls are located. Two separate 50 ohm outputs (PL-259 connectors) allow the user to use the loop with two different receivers at the same time.

DETAILS. The loop is wound on a 12 3/4 inch, 1/4 inch thick PVC pipe with magnet wire. The loop is horizontally mounted inside a 1/2 inch thick PVC pipe which connects to the base (it can also be used to carry the loop).

Two small plastic boxes are mounted inside the loop, the bottom one houses the tuning, pre amp and regeneration circuit. Matched LS 5912 / H11F3 FETs are used in the amplifier/regeneration design. The top box acts as a counterbalance to the electronics box. The 5 conductor cable exits the electronics box and passes through the left mount to the control box. On the outside of the right mount is the geared tilt box (3:1 gear reduction - very nice). One knob for tilt adjustment, the other indicates the tilt angle.

The loop consists of 4 separate windings and tunes 530-1720 khz. The two 2-turn outside windings are for the regeneration circuits. The two 11-turn windings are for the two main tuned circuits, tuned with varactor diodes (inside the electronics box). The windings are wound in grooves mechanically cut into the loop PVC pipe. This guarantees exact symmetry of the coil and the nulls (see below). The ends of the windings pass through the bottom of the loop and into the electronics box. A local/DX switch is mounted on the electronics box, which allows the user to select negative/positive feedback from the two regeneration loops (specified as a 25 db reduction in pre-amp gain). Negative feedback drops the gain as well as flattens out the frequency response of the loop for 'hi-fi' listening. Positive feedback (or regeneration)

narrows the frequency response and adds gain at the tuned frequency. The amount of feedback is adjustable.

The control box can be conveniently placed near the receiver which allows easy adjustments to be made without interfering with the loop itself. The gain knob allows adjustments from "off" to "wide open" and adjusts the gain to both receiver outputs at the same time. This feature allows the user to tailor the loop output for a wide variety of receiving equipment (from a simple portable to communications receivers) without the possibility of overload. Loop tuning is accomplished with two knobs, coarse and fine tuning. The coarse knob is adequate for the lower AM band (to 900 or so), but the fine tuning knob becomes necessary when the upper band is tuned (it can also be used to easily adjust the loop peak to either side of the frequency of interest). The final knob is used for regeneration adjustment, which regulates how much of the regeneration loop signal is fed back into the main pre-amp. There is enough range on this knob to adjust from no feedback to well past oscillation in all situations. Power for the antenna is connected to the control box as well, either from the AC adapter (included) or from 13.7 VDC (typical car battery or other DC supply - I did not try this). Current draw is specified as 50 mA (I didn't measure this).

USING THE LOOP. The KIWA loop operates much the same as other loops I've tried. After tuning the receiver, the loop is tuned. The loop is then rotated and/or tilted for optimum performance. I rotate mine by grasping the outer 1/2 inch PVC, and have found the adjustment to be smooth. To tilt the loop (usually only necessary for nulling), grasp the lower knob on the tilt box and adjust to the appropriate angle keeping an eye on your S-meter/LEDs for minimum signal. Trading off between adjusting the rotation and tilt is necessary for optimum null. The null is very sharp and, with patience, is very deep. Using a R-70, with an uncalibrated S-meter, my locals were nulled from 30-50 db, most of them to the point of receiving audio from stations underneath. The null will not seem as 'deep' if there is no station to receive... but the S-meter will tell you it's significant (often times you'll hear a rush effect in the null if there is not another station to receive). There is little to no effect caused by hand capacitance; when you move your hand away from the loop, the null remains!

I have made several measurements of the symmetry of the nulls on various local stations and have found them to all be 180 degrees apart. My procedure is as follows: first the station is nulled, the top compass pointer is adjusted to the null and the tilt

angle is scribbled down somewhere. Then the loop is swung 180 around and the null is once again established (depth is approx the same either direction). Checking the compass reveals the pointer 180 degrees from it's adjustment and the tilt angle to be the same... very good. The compass can therefore be used as an effective direction finder (often useful in distinguishing signals of TP origin versus DU signals on the same frequency).

The regeneration really shines when trying to dig out stations located next to locals. As usual, the local tuned and nulled, then the receiver and loop are tuned to the desired adjacent frequency (no need to touch the loop - a great asset). The regeneration control is then adjusted (clockwise). As the oscillation point is neared, the sidebands of the received signal begin to drop off (you can easily notice this by the loss of high frequency "hiss" in the received signal). Back off slightly from the oscillation point. Too little back off may result in some "bleed through" from the local; too much and the sidebands return. Practice makes both of these situations easy to recognize. The fine tuning knob must also be adjusted, as the frequency seems to change a bit near oscillation. As long as you know that you need to adjust both the regeneration and fine tuning knobs, this does not present a significant problem. Adjust both knobs for optimum signal. You can then tune farther away from the local, like you would with a narrow filter, and repeat, thus tuning into the side-band farthest away from the local. Regeneration can also cut some of the "hiss" in more normal DX situations. What the KIWA loop provides, then, is an additional element in your set-up for achieving better selectivity in tight DX situations.

I have found that for about a half hour after power up, the loop tuned frequency drifts a bit. This may be due to a warm-up of the circuits generating tuning voltages. When using the regeneration (or upper band DX), the drift is significant enough to tune the loop away from the peak...a slight adjustment is necessary to repeak...so be sure to check your tuning once in a while. I am getting into the habit of turning on the loop at least a half hour before I leave it on for the night...then doing a final 'fine tuning' adjustment before leaving. No significant drifting is noted the next morning using this technique.

KIWA electronics provides a manual with the antenna. All the specifications are outlined, as well as a complete discussion of optimum set-up location. Each of the controls is described, as well as an easy-to-understand dialog of how to use the loop for nulling. There is also a brief discussion on bearing measurements. In addition, alignment instructions are provided, as well as some tips for antenna maintenance (including replacing

the O ring in the 'tilt' gear box). A complete set of schematics for both the electronics and control box are provided. Directions for obtaining customer service are included. The

Radio Roundup

News of radio personalities, of interest to DX'ers

Greetings all ... After some data crunching, Research Director, Inc., says that when it comes to radio listening 34.5% listen at home, 32.8% listen a work, 30.9% in the car, with a little 1.9% left for the other category ... Eric Bueneman reports that KEZK-590 has changed its call to KFNS to better reflect its all-sports format ... KUSA-550 has dropped its country format in favor of CNN Headline News ... WINU-880 has gone Solid Gold ... Veteran St. Louis Newscaster Bob Hardy has passed away ... KHAD-1190 is now programming country music ... WKQB in St. Louis bagged Steve & D.C. for a racial slurs. They went to KAZY in Denver and lasted just eight days ... Westwood One has announced a Flood Relief Special for the Labor Day Weekend. Wynonna Judd will host ... Many stations have been spearheading flood relief efforts on the airwaves include KMOX, WKQI, KJJY, WTAO, KFMW, KZEO and countless stations outside the affected area ... Outrun a horse? That is what former Cincinnati Bengal wide receiver, and now WLW sports-talk host Chris Collingsworth tried to do. The end result was a dead heat after running the 220 yard course. Collingsworth had a 110 yard start. Current TV sports anchor at WVIT in Hartford, former Giant Beasley Reese has performed this act a few times, and beat the horse! ... KERC has been sold to Alliance Broadcasting. At precisely 8 pm, on Thursday August 12th, the station switched from BIG BANDS to Oldies ... G. Gordon Liddy's Show is now being heard of WJJD in the Windy City ... The Earl Jackson Show has been added to the line-up on the Talk America Network. It will air weekdays at 8 a.m. ELT ... WTRY has signed on to carry the IMUS Show ... Bob Yates has been given his walking papers after six years at KSTP. His slot will be filled by Freddy Mertz on an interim basis. Freddy sure does get around ... Rush Limbaugh, Rick Sklar,

KIWA loop comes with a 1 year Warranty, plus a 30 day trial period, and is available from KIWA Electronics, 612 S 14th Ave, Yakima WA 98902 for \$330 plus shipping.

Pete Kemp (KZ1Z)

P. O. Box 73

Bethel, CT 06801-0073

News of radio personalities, of interest to DX'ers

Wally Philips, Norman Corwin and National Public Radio's All Things Considered are to be inducted into Radio Hall of Fame. The induction ceremonies will be hosted by Larry King, with Don Pardo doing the announcing chores ... Atlanta's morning man Moby on WKHX will be heard via satellite on September 20th ... Bernie Meltzer, who recently was dropped at WOR-710, is rumored to be chatting with crosstown station WEVD-1050 and may reappear on the air. In the meantime he is writing and looking into other avenues for his wisdom ... With all the fast turnover ownerships going on the FCC is rumored to be considering putting their 3-year rule back into effect. This basically states that a new owner must hold on to the station for at least three years before re-selling it ... KNUZ has switched from Goldies to All News, after a 15 year run with the du wops. KNUZ will carry CNN and ABC News. They will also run Mutual's Pat Buchanan Show and other talkers. They refer to themselves as "All News, All News" then why the talk shows? Wouldn't it be "News/Talk, News/Talk?" ... The FCC has instituted User's Fees of between \$250 and \$900 on radio stations ... WCIE in Fayetteville has changed formats and call letters, going from Christian programming to CHR under the banner of WWKG and the slogan "Hot 1450" ... NRCer Dave Braun reports that Camille Bohannon, who has been doing the news for NBC/Mutual, WWRC and WTOP has moved on to Associated Press Radio as an anchor/reporter ... If you would like to contribute to this column, I may be reached at the address above, via CompuServe 72376,2557, the FIDO system in the Shortwave, Ham or Broadcasting echo areas, or amateur radio packet, KZ1Z @ K1UOL.CT So much for now.

14WBNS
COLUMBUS RADIO
175 SOUTH THIRD STREET COLUMBUS, OHIO 43215

The Broadcaster's Guide to DX

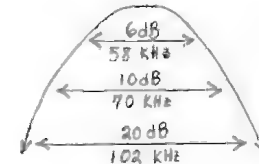
A tri-fold guide for use with reception reports explaining DX'ing, how the NRC was formed, and the importance of QSL's to DX'ers. Also in Spanish and French. US\$1.50 for 20. From NRC Publications. (NY residents, add sales tax)

Collins Torsion Mechanical Filter for the R-390A

by Dallas Lankford

Recently while studying the feasibility of adding a noise blanker to the R-390A, I made a surprising (to me) discovery. For the non-crystal filter bandwidths, i.e., for the 2, 4, 8, and 16 KHz mechanical filter bandwidths, the 3rd order intercept (ICP3) and hence the 3rd order dynamic range (DR3) of an R-390A is determined mainly by the 1st IF amp, not by the front end as it should be.

The non-crystal filter bandwidth of an R-390A at pin 1 of V501, the grid of the 1st IF amp, is shown at right. When the front end selectivity is included, at lower frequencies (say, below 5 MHz) the non-crystal filter bandwidth at pin 1 of V501 is somewhat narrower. But in any case, for non-crystal filter bandwidths, the R-390A is quite broad up to the mechanical filters following the 1st IF amp. In other words, the R-390A was designed as a CW receiver, and AM was added as an afterthought.



Typical R-390A Selectivity At Pin 1 Of V501, 2 KHz BW Or Greater

Suddenly in a flash, a number of published statements which had seemed incorrect to me were explained. How had Sherwood gotten such uniform dynamic range measurements for the R-390A at 20, 10, and even 5 KHz tone spacings? My measurements using mechanical filter bandwidths were not nearly as different as his. Apparently he used the 0.1 or 1.0 KHz crystal filter bandwidths! And how did Rohde get a -4 dBm ICP3 for the R-390A? I never got better than about -12 dBm in the MW band using mechanical filter bandwidths. And in the SW bands I got much worse, typically about -24 dBm. Again, apparently he used one of the crystal filter bandwidths. To confirm my suspicions, I made extensive ICP3 measurements using the 0.1 crystal filter BW and got quite uniform ICP3 values at all frequencies and at various tone spacings, from 5 to 20 KHz. With the 1.0 KHz crystal filter BW, the 5 KHz tone spacing ICP3 drops off quite a lot to as low as -22 dBm for a Motorola I measured. That still translates into a DR3 of 74 dB. By contrast, with the 2 KHz BW the Motorola measured -52 dBm ICP3 and 54 dB DR3 for 5 KHz tone spacing. It appears that I made a mistake in an earlier HSN where I gave much higher values as typical. Or perhaps there is substantial variation from one R-390A to another. When some of the values I quoted in a draft of this article were questioned by Denzil Wright, I could not reproduce my earlier measurements on an EAC of mine because I had modified it with a mechanical filter as described below. And when I measured the ICP3 and DR3 of a Motorola R-390A, I got lower values than I thought I got with my previously unmodified EAC. The most accurate statement I can make at present is that there is some variation from one R-390A to another, and perhaps substantial variation in ICP3 and DR3. In any case, the general trend is clear. The R-390A has significantly better 3rd order IMD performance in the 0.1 and 1.0 BW's than the 2, 4, 8, and 16 BW's, and the R-390A 3rd order IMD performance declines as frequency increases for the 2, 4, 8, and 16 BW's.

Further measurements revealed that RF voltages as high as 20 volts RMS can be present at the input to the R-390A mechanical filters when a weak signal is tuned near a strong signal. The maximum rated input of an R-390A mechanical filter is 5 volts RMS. It is remarkable that the R-390A mechanical filters routinely withstand 4 times their maximum rating. However, this may account for some of the occasional mechanical filter failures in R-390A's.

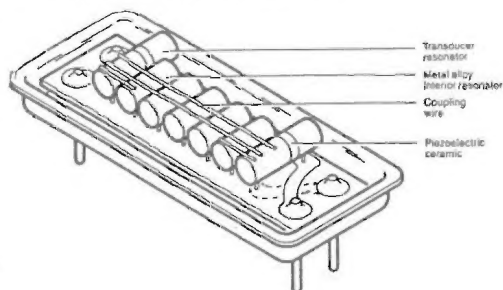
I have often wished for a 6 KHz BW filter for the R-390A, so this seemed like an ideal opportunity to kill 3 birds with one stone: add a mechanical filter immediately after the 3rd mixer which would provide (1) a 6 KHz BW while retaining the 4, 2, 1.0, and 0.1 BW's, (2) improve the non-crystal filter ICP3 and 3rd order dynamic range within about 50 KHz of the tuned frequency, and (3) protect the R-390A mechanical filters from excessive signal levels.

Of course, this is easier said than done. I am sure I am not the first person to contemplate adding a filter after the 3rd mixer. The problem is space. There is not much spare room in the small compartment where such a filter would naturally be installed. An R-390A noise filter is the closest to fit. An FA-type Collins filter would barely fit, but my finding at HAMTARGO at a reasonable price. Six years ago Collins priced them at \$900 per one. An FD filter is the same size as an FA filter, but an FD filter requires other components for impedance matching because the FD filters are 2000 ohm source and load.

Nevertheless, I began prototyping with an FD58 to verify the feasibility of such a mod. Those results are related in my hand written notes "Collins FD mechanical filter for the R-390A." The FD58 circuit never progressed beyond breadboard form, with the filter and impedance matching components sitting on a small piece of wood on top of the RF deck, with connections made via wires running through a spring hole and via a tube test socket. However, the FD58 breadboard circuit permitted me to confirm the feasibility and desirability of such a mod.

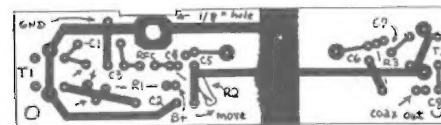
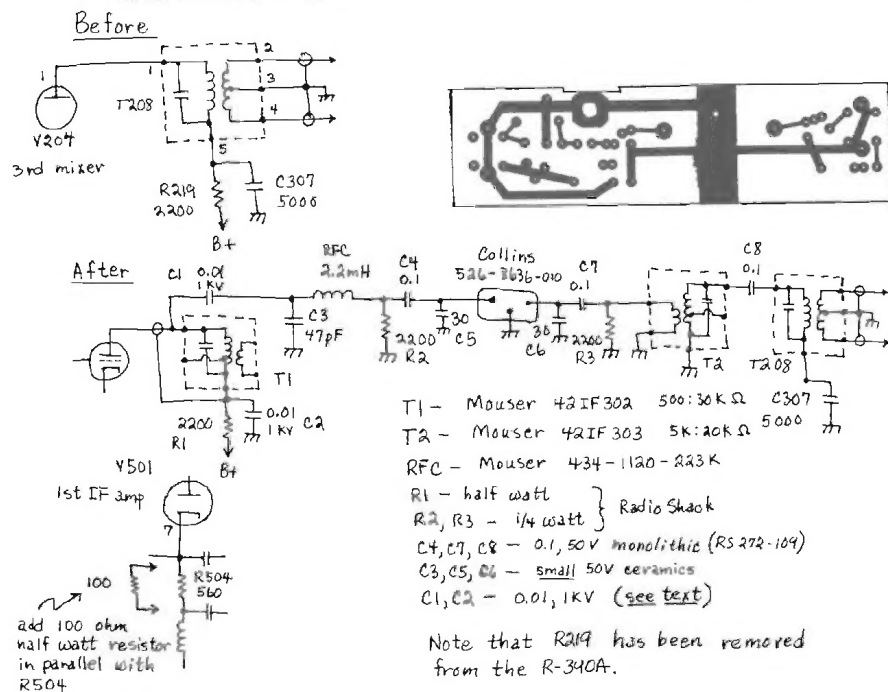
Meanwhile, the search continued for a suitably small filter. Ceramic filters were considered, but rejected because of the difficulty of obtaining ceramic filters with uniform specs. I could get high quality, tightly spaced ceramic filters directly from Murata or NTKK, but I would have to order about 100 filters for about \$2000. I could not see myself going into the filter peddling business just to get a few small, tightly spaced, 6 KHz BW filters. And what good is a mod if others can not easily reproduce it?

Fortunately, Collins came to the rescue with their low cost series of torsion mechanical filters. I did not know much about Collins torsion mechanical filters when I ordered them; only that they were small, about the size of a 16 pin IC, that they cost \$76.81 each, and that the 6 dB and 60 dB specs were good, namely 5.5 KHz min. and 11 KHz max. respectively, for the AM filter.

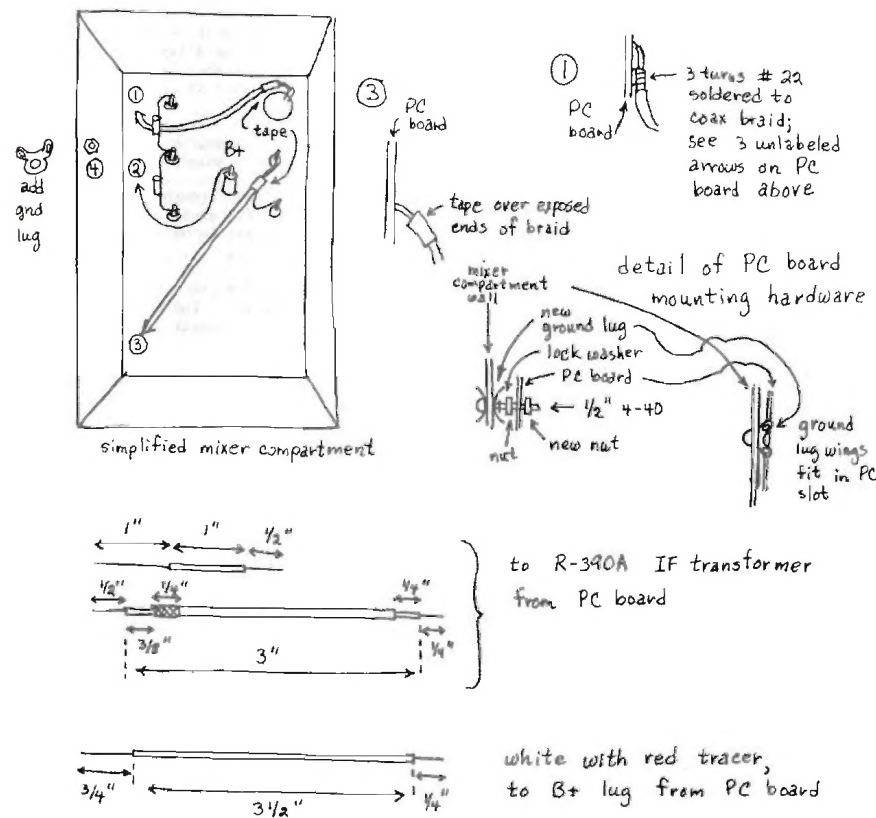


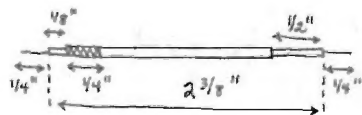
I also knew that the Collins torsion mechanical filters were 2000 ohms source and load, so that impedance matching would be required. I guessed correctly that the same impedance matching circuit I used for the FD58 would work for the torsion filter, and because the torsion filter was much smaller than an FD filter, that everything would fit inside the 3rd mixer compartment.

Before and after schematics of the mod are shown below. A PC board layout is also given below.



Another view of the PC board with information on the parts layout is given above. The 1/8 inch hole in the ground trace at the top is for mounting the PC board with a 4-40 screw in the side of the mixer compartment; see (4) in the simplified mixer compartment diagram below. The shallow notch in the PC board above the mounting hole is to clear the ground lug which is part of the mounting arrangement; see below. The two holes in the bottom corners of the PC board are for nylon bolts and nuts which are used as standoffs to prevent the bottom of the PC board from accidentally shorting to the metal side of the mixer compartment. For mounting, the existing 4-40 screw is removed and replaced by a 1/2 inch long 4-40 screw. Also, an R-390A type ground lug is added. An exploded detail of the PC board mounting arrangement is given below. The miniature coax from mixer tube to PC board (1), the stranded insulated wire from standoff (B+) to PC board (2), and the miniature coax from T208 to PC board (3) are shown in simplified form below. Most of the R-390A parts have been omitted from the sketch for clarity. The miniature coax and wire run underneath all R-390A parts and connecting wires. Some details for attaching the miniature coax to the PC board are also given below. The PC board layout can be improved by moving the trace and pad for one end of R2 as shown above.





to R-390A mixer
from PC board

Lengths of the miniature coax and lead dressing are given above. Actually, I used Teflon insulated shielded hookup wire which is sturdier than miniature coax. Exposed edges of braid were taped with Scotch 27 Glass Cloth Electrical Tape, 1/2 inch wide, available from Amidon. It is important not to introduce shorts, especially around the mixer tube socket where high voltages are present.

The transformers T1 and T2 are standard (SUMDA) miniature 455 KHz IF transformers. T1 is a 500:30K ohm, 22:1 turns ratio, while T2 is a 5K:20K ohm, 6:1 turns ratio. I did not know if T1 would safely carry 200 - 300 VDC, so I tore one apart and examined the internal construction. It looks like it would carry 1000 VDC. I also did not know if the current rating of T1 was adequate for the mixer current. So after 20 hours of use I removed T1, tore it apart, and inspected the coil. There was no evidence of internal heating. However, I cannot guarantee the safety or reliability of this transformer, only that it appears to be safe and reliable. Consequently, I assume no responsibility or liability for this mod. The primaries of both transformers are tapped, and the pin-out on one side of each consists of three pins. The middle pin was cut off with miniature diagonal cutters to simplify mounting the transformers. This pin should not be cut off too close to the insulated base; otherwise the transformer primary may open.

C1 and C2 must be 0.01, 1000 volt disc ceramics, and C2 must be small enough to clear internal R-390A parts. With a different PC board layout, C2 could be placed at the end of the PC board beside T1, and then the size of C2 would not be critical. Naturally I discovered this after the PC board was etched as I attempted to install the PC board.

The trace for mounting R2 should be moved slightly as shown, or the leads of R2 can be curved slightly so that R2 does not cover the B+ wire hole.

R2 and R3 may be omitted for a slight increase in signal throughput. They are artifacts of the breadboard version where I tried different circuit variations to minimize passband ripple. They are also the preliminary steps in developing a diode switched multi-filter board.

RFC and C3 form an L matching network to match the high impedance of the mixer and T1 to the 2000 ohm source required by the filter. You may use 2000 ohm resistors for R2 and R3 if they are handy, but don't expect any noticeable improvement.

There is some signal leakage past the filter with the Mouser radial lead choke specified. To eliminate all signal leakage, you should use an Amidon FT-50-43 ferrite toroid core ($\mu = 850$, $A_L = 0.52$ microHenrys per turn squared, $L = 0.52 \mu$ microHenrys) with 62 turns of #30 enameled copper wire. The signal leakage was discovered after the PC board was etched. A different PC board layout is required for correct toroid mounting.

When the R-390A 8 KHz BW filter is used, the 80 dB BW with the Mouser choke is 10.5 KHz, so there is really no need for the toroid choke when the AM torsion filter is used. It might be worthwhile to use the toroid choke if the 2.5 KHz BW SSB torsion filter is used for this mod.

The Collins low-cost torsion filters are truly remarkable. Low cost does not mean cheap, either in appearance or performance. The torsion filters are small, about the size of a 16 pin dual in-line IC. The case is metal, while the bottom is epoxy fiberglass PC board construction, apparently plated through, with press-fitted pins. I can attest to the fact that the pins are well-attached because I have removed and reinstalled some of them several times. Some torsion filters are assembled with standard low-temperature solder. In that case, the solder around the bases of the pins will flow up inside the case if the filter is soldered or unsoldered upside down. You can fix that by holding the case rightside up, applying the hot iron tip to the pin for a moment, and the solder will flow back out. Then desoldering braid can be used to restore the pins to original. As I have said many times before, ChemWick Lite 0.100 desoldering braid is the only desoldering braid which really works well.

My original PC board had a small copper foil barrier fitted into a slot cut across the center of the PC board and soldered to the ground plane. My

current PC board has no such barrier because careful measurement revealed it was unnecessary, at least for the AM filter.

The torsion filters are low loss, but the L matching network adds additional loss, enough loss to slightly desensitize the 390A. Fortunately, this loss can be mostly recovered by adding a 100 ohm half watt resistor in parallel with R504, the 1st IF amp cathode resistor. One end of R504 is attached to a lug on the end of the bandswitch waffer, the other end to an insulated feedthrough; see the sketch at right. Use desoldering braid to remove excess solder from the lug and feedthrough, form a small loop in one end of the 100 ohm resistor lead (Radio Shack half watt works well), push the loop onto the feedthrough using the tip of a screwdriver blade (the loop should be tight enough to hold the resistor in place as you solder it), solder the feedthrough connection, and connect and solder the other end of the 100 ohm resistor at the bandswitch waffer lug.



To install and tune the filter, first remove the 390A RF deck, remove R219, and remove the insulated wire (white with blue tracer) from pin 1 of V204 to T208. Next install a long length of insulated wire at the B+ insulated standoff, and a long length of mini-coax at T208, and bring these two wires through the rack spring hole in the mixer compartment. Reinstall the RF deck. Use a tube test socket to extend V204. Place a 6 inch by 6 inch piece of 1 inch thick wood on top of the RF deck. Attach the completed PC board, turn on the R-390A; inject a signal generator signal (or tune a CAL marker) and peak T208, T2, and T1 in that order. Disconnect the PC board, remove the RF deck, and reinstall the PC board in the mixer compartment (remove the temporary mini coax from T208 and install the final mini coax, and trim the stranded insulated wire from the B+ insulated standoff to an appropriate length, about 3 1/2 inches long). The mini coax at the input side of the PC board should be the same as was used for the outboard tuneup. The PC board ground connection is a short length of #24 tinned solid copper wire from the PC board ground pad to the ground lug. Reinstall the RF deck, and repeak T208.

The low-cost torsion filters are available in AM, 6 KHz BW, part no. 526-8635-010, SSB, BW 2.5 KHz, part no. 526-8635-010, and CW, BW 0.5 KHz, part no. 526-8634-010. Shape factors are typically slightly under 1:2, and the filters are capable of ultimate attenuation in excess of 100 dB. You should contact Bob Johnson, Principal Engineer, Filter Products, Rockwell International, 2990 Airway Avenue, Costa Mesa, CA 92626, phone (714) 641-5311 for prices and availability of these filters. The attenuation characteristics of a similar low-cost, 8 resonator, torsion filter are shown below. The spurs between 370 KHz and 390 KHz, at about 480 KHz, and about 530 KHz are normal for mechanical filters. Even the spur at about 480 KHz will be attenuated to below 100 dB by an ordinary 455 KHz IF transformer, so these spurs are of no consequence unless the torsion filter is the only selectivity in your IF. This is, of course, not the case with an R-390A.



Musings of the Members

Thoughts from NRC members ... the opinions expressed in this column are those of the individual writer and do not necessarily reflect those of the editors, publishers, or the National Radio Club, Inc.

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Wilmington, DE 19850-1502

Times are local per Muse; submit double-spaced only.
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WELCOME TO THE REINTRO EDITION OF MUSINGS! THE FOLLOWING READ BETWEEN THE LINES AND SENT IN REPORTS TO LET US KNOW A LITTLE MORE ABOUT THEM AT THE KICK-OFF OF THE DX SEASON! DON'T LET IT STOP YOU FROM SENDING IN YOUR RE-INTRO, ITS JUST SOMETHING TO GET THE BALL ROLLING AT THE START OF OUR YEAR! HERE WE GO:

HANK HOLBROOK - 407 ARUNDEL ROAD - FAIR HAVEN CLIFFS - DUNKIRK, MD 20754
----- Mind if I MUSE a bit for the reintro issue, born 11/22/28 and an NRC member since early 1947, started DXing in about 1943 and started writing for verifications on 11/46. Through the years, we have tuned most everything, Broadcast, LW, some SW, FM & TV. Verifications have been collected from over 800 ham operators with over 400 on the 160 meter band just above the BCB. Many UTE stations have been verified, over 2000 beacons on LW, 1591 aircraft mostly on VHF and 4889 ships/boats verified from LW to VHF. Total veries on all bands stands at 15127 with 2876 from the BCB from 103 countries plus 1105 on FM. Per our editors inquiry, DAVE has signed a long v/1 from WNRK-1260 for a 10/28/84 DX program (very rough here due to WWDC), also WQIQ-1590 for a 2/19/85 report, also from WVSJ-1360 on 11/20/90. Dave assisted in getting veries from flea power WZZE-88.7 (their 1st verie) (and I think the ONLY one!-DWS) 7/3/75, no longer in operation (it was moved to Glen Mills, PA and is now on 97.3-I know, I did it-hi!-DWS), and also assisted in getting veries from WMIZ-1270/WVLT-92.1 from Joe Patti, Operations Manager on 6/7/93. My wife and I took day trips to Harpers Ferry, WV and then into the Shenandoah National Park (Skyline Drive). The TIS at Harpers Ferry was not on but I did hear the TIS at the Shenandoah National Park on 1610, a 4 minute tape on what to see & do. Daves' remarks on stations not knowing what to do with reception reports and being short staffed brings this: sent a report to WJTM-88.1, answer back in 3 DAYS! Before I opened the envelope, I thought "To Fast!". What was enclosed was a "Dear WJTM Family" with a response envelope, they wanted money. I had enclosed \$10 with my report as a gift. The letter was signed by the Operations Manager, the only fulltime employee, hoping to get a fulltime announcer, anyway, no verie. Another one that got away was WWJZ-640, reported their 7/4/92 test (loved the music!). ROGER ANDERSON (my best man when I was married 5/29/53), saw your update in INT'L ACHIEVEMENTS showing VA/VA/PA, where are you now? Please, drop me a line. Think this brings me up to date! 73 (Will try to give you a call on one of our trips to WYRE/WXZL soon, Hank-DWS)

ERIC BUENEMAN (NØUIH) - 631 COACHWAY LANE - HAZELWOOD, MO 63042-1347
----- KSGM-980 has bitten the dust, at least for the time being, possible victim of the Flood of '93. That leaves a weak WITY & KMBZ battling for domination on the 980 spot. KSGM was unique in that when it went fulltime on 980, the city of license was changed from St. Genevieve, MO to Chester, IL but retained the KSGM call! That was because they had an FM on 105.7 at the time (KSGM FM which is now St. Louis rimshotter KPNT) which was (and still is) licensed to St. Genevieve. 2 big changes have taken place in Atlanta with WCNN-680 going to all sports as "680-The Fan" and WAZX-1400 taking over the 1550 spot with its Spanish format. 1400 is scheduled to revert back to its old call, WVNF. WKYX-570 has dropped its long standing adult contemporary format in favor of News/Talk. A rare silent period from WGNU-920 on 9/13 brought KARN with the Best of Bohannon, KYST with Tejano music and bilingual DJs, and WAFS with Christian music/USA news with a report sent to WAFS, my 6th ex-local heard. When I was living in metro Atlanta, by contrast, I heard 11 St. Louis area stations. Re-intro: I'll be 27 on 10/14, just graduated from the St. Louis Community College in Florissant Valley with an Associate of Arts in Communications Arts-Broadcasting, and looking for work in the St. Louis market while operating a Part 15 FM News/Talk station (Part 15 is the proper name for a rule on low-power transmissions in the FCC rulebook and thus, must be capitalized-eb!) (But NOT HERE!-DWS) 73!

DAVID C. BRAUN - 11 MILL BEND ACRES - WYOMING, DE 19934
----- My reintro for the reintro issue: I am 31 years old and a civil engineer working for the city of Dover Dept. of Public Works, living with my wife of 2 years and 15 year old step daughter. I live W of the town of Wyoming, which is immediately SW of Dover. Have been in DE since 85, was previously in N VA & IN. Summertime DX was not to exciting this year, have had a lot of stations for only a couple of minutes before fading, leaving no traces of an ID. Day trips have been made to locations on the Delmarva Peninsula and a trip to Morgantown, WV, items noted as different or additions to the log have been noted in DDXD-E. I heard the interview on SPECTRUM on WOCR-7435 the evening of 9/4 from the convention with RON MUSCO, JOHN BOWKER & MARK CONNELLY, it seemed to go over well with a lot of good publicity for the NRC. Recent DX here, while nothing spectacular, did finally get CIHT-1260 on 8/30 at 11:21PM with Canadian PSA's and IDs.

Had been trying for them since DX reported them several years ago. While waiting for the DX tests to start on 9/5, WTOP was noted off. Only heard one Spanish station, didn't catch any ID's nor any of the domestics on 1500, it was the 1st time WTOP was noted off in quite a while. Listened for the WSEZ-1560 test but couldn't do anything about WQEW, so not heard. Couldn't stay awake for any more of the tests that weekend. 9/6 10:15PM found the Orioles on 1400, list shows WINC & WKAY, no ID heard, both are needed. (My money is on WINC-DWS). On 9/7 7:44AM found mentions of Nashville on 1380 from unneeded WIZO. On the evening on 1220, WENC was atop with High School football and ads for the Columbia National Bank. There were high school football games all over the dial that evening! Hope everyone has a great DX season this year! (amazing how that happens isn't it, Dave-DWS)

RON MUSCO - BOX 118 - POQUONOCK, CT 06064
----- Well, the convention is over. Many THANKS to CHUCK RADER, KEN CHAT-
TERTON, RON BAILEY, ERNIE NESOLOWSKI, MR. & MRS. JOHN BOWKER, TONY FITZHERBERT,
AL MERRIMAN, DICK TRUAX, JERRY STARR, ELK (the only one who has a life plus 4
membership!) & DAVE SCHMIDT. Seriously, THANK YOU all for coming (a straight
line, better watch it, HERR SCHMIDT will edit it out!) (Nah, just CHANGE it to
borderline nuts!-DWS). I had a beverage set up in Suffield, CT, just W of the
Bradley Int'l airport. RON BAILEY and myself trudged through the swamp to erect
it, pointing W. Sunday AM, DICK TRUAX and AL MERRIMAN arrived at the site at
1:15AM and set up my HQ180A. The stars were out, almost a full moon and I heard
nothing new, leaving at 3:45 AM. The 1460 test was not on (noted someone off
frequency there), the 1560 IN test didn't show, WQXR (I know its the wrong call
but it'll always be W2XR to me!) went from S9+++ to S4 on fadea with a possible
Paducah, KY under. 1375 St. Pierre was in with a good signal and he is N/E to
me so I'll reset the termination resistor up to 1000 ohms and try that. The LW
ended in a barn full of tobacco and it was an eerie scene but enjoyable. The
LW is now coiled up along the fields edge, waiting for the field to be replanted
and it will likely be back up at the end of October. Called WRDM-1550 and asked
why they signed off at 7PM Sunday night. The Italian president said they were
24 hours. He was concerned that I couldn't hear them about 10 air miles away
and gave me the beeper number of ex-NRCer John Ramsey, the CE. Seems the old
WLXV never did a pattern switch but must have lowered power. Anyway, WRDM now
disappears after sunset and WARD hammers in til their sunset. If they're strong
after sunset, I know they didn't switch pattern. According to the owner of
WKQW-1120, he suspects WUST doesn't drop to CH power. Question - how come the
Enfield cops showed up 10 minutes after the fireworks display? Enfield - 2003?
(edited for broadcast, SASE for a copy of the REAL thing!-DWS)

JOHN R. MALICKY - 995 SHADYCREST ROAD - PITTSBURGH, PA 15216
----- Hello again! I had planned several station stops in NE PA be-
fore and after Enfield, but only made it to 7. However, I do wish to thank
HARRY HAYES, JR. for providing me a map of Scranton/Wilkes-Barre station loca-
tions/info & KERMIT GEARY for other station info...Thank you! Harry & I also had
a most interestin discussion of Scranton media changes during the past year at
Enfield (an 18 minute interview for the DXAS). Notes: WYCK-1340 now simulcasts
with WICK-1400, 1320 is silent and WILK-980/WGBI-910 simulcast with talk. Also,
I received 3 phone calls the week before Enfield regarding visits from WNAK-730
(closed on Monday), WMXH-750 & WARM-590 (from CE Bob Lenio on tip from DAVE SC-
HMIDT, tnx Dave!) who would be open Monday. In local changes, WKZV-1110 was
off 1 week but returned 9/9 and WKPA-1150 is now WGBN "Gospel 1150 in Pittsburgh"
as of 9/13. In Harrisburg, WHP now ID's on 1230 but different talk/news are
given. On our return from Enfield, 9/6, CHRIS CUOMO & I noted WANN-1190 booming
in with sign off & CW music in stereo! Local DX here, all new stations, found
WTTT-1430 6:10AM on 9/8 & 9/9, WLSQ-1430 6:57AM on 9/15 and 9/14 a great S op-
ening brought WEDE-1130 7:56PM with local ads, WBAG-1150 with "Sportsradio" at
7:58PM, WDFP-1120 with full word-for-word sign off at 7:45PM, and WLZN-1170 with
southern Gospel fading at 7:27PM sign off. Next MUSE, hopefully, I should have
station visits on the 7 (WPPA-1360, WPAM-1450, WMBT-1530, WWCC-1590, WCDL-1440,
WMXH-750 & WARM-590) stations visited before & after Enfield. 73s!

JOHN D. BOWKER - 1811 FT. DUQUESNA DRIVE - SUN CITY CENTER, FL 33573
----- It suddenly dawned on me at the NRC convention in Enfield that I
had lost track of several members who attended because they hadn't MUSED in a
year or 2. But, then, neither have I so a reintroduction is in order: I've re-
tired from the radio/tv broadcasting/communications business after 35 years with
RCA and my wife and I now travel across the country in a motorhome outfitted
with up to 7 radio/tape recorders. My work for the last 12 years before retire-
ment was as the RCA/NBC liaison person with the FCC in Washington so I had a
chance to work with the FCC staff and learn how things are done. Needless to
say, I'm not gleeful with their actions in the past couple of years since I left,
but have great hope in the new Chairman of the FCC and, with any luck, the new
directives from the President insisting that government agencies shape up! Mean-
time, we're having a ball visiting NRC members in our travels. From time to
time, I could use a hand in keeping our collection of taped station breaks up to

date and it may be that an NRC member lives in the region where a new station comes on the air or changes it calls. If such changes occur near you, I'd sure love to receive a cassette tape with about 5 minutes of the station recorded on it, it must include a legal ID as a minimum (that is call letters and city of license). We had a lot of fun at Enfield and are already looking forward to next years convention! PS: I'm licensed as WA2WEN but haven't been active for the last year or so, hope to when I get home. Best Regards!

BILL HARDY - 2301 PACIFIC AVENUE - ABERDEEN, WA 98520-4527

Hi, everyone! This is the time of year for re-intros. I've been a DXer since 1960, and joined the NRC in 1974 when I married NRC member NANCY GANTZER, formerly of Fredonia, NY. I've belonged to IRCA since 1964 and am project coordinator for the IRCA AM-FM Almanac. Much of my listening time is devoted to gathering information for the Almanac. This summer, I gathered a bunch of info during our vacation to Mt. Rushmore, SD by way of the IRCA convention in Billings. I also had several opportunities to listen with headphones at night, and got some bonafide DX which recently appeared in DDXD-N. I sent numerous AM log updates to Wayne. Bandscanning for the AM log and the Almanac is much like DX contests, while listening for 'regular' catches, you're bound to hear something new! So we're looking forward to the 93-94 contests! I bought an IBM PS/1 computer in February, a 468SX with a big 170 megabyte hard drive to store all this DX data. I signed on to the Prodigy service since 7/17 and have noted several NRCers on line. 2 bulletin boards I like are the Radio topic of the Arts board and the More Radio Hobbies topic of the Hobbies board. If you have Prodigy, send me a message at FMFT21A (Nancy is FMFT21B), we check for messages about twice per week. I'm just starting a term for 2 years as IRCA President. That's about it from here, hopefully my next MUSING will include some new catches! 73 & Good DX!

DAVE SCHMIDT - P O BOX 11502 - WILMINGTON, DE 19850

We had a small tornado through our neighborhood on 9/28 which took down a lot of trees and the electric for 14 hours. While off, the Superadio operated great with NO line noise. After the electric came back on, the line noise has been at it highest level yet this year. So, I guess it's time to rattle the cages of the electric company. It's been very bad during the night hours, which it wasn't prior to the outage. Otherwise, some DX has been sent along to DAVE BRAUN! While the electric was off, hets were noted all over the dial so JIM RENFREW should be hoping-hi! Remember, deadlines are SATURDAY for this column, and please, DOUBLE SPACE your reports, it really saves the old eyeballs! Keep those MUSINGS comin'! 73 & CUNZ!

Need to renew?
Expired? The mail-
ing label will tell
you.

Shortwave Listening in the Classroom

I am developing a teaching unit that introduces shortwave, or world band radio, in the elementary school classroom as an exciting, hands-on listening center that integrates media studies with other subjects across the curriculum. I would be pleased to hear from you if you are a teacher, or know of a teacher, that uses shortwave listening in the classroom. My interest is to establish an international network of teachers that use shortwave in their classrooms for teaching about media studies, global perspectives, world geography, social studies and other subject areas. Please write if you would like to share your ideas and experience with other teachers. Neil Carleton, P.O. Box 1644, Almonte, Ontario, K0A 1A0, Canada. Grade 5 teacher, CIDX and ODXA member. NASWA editor of the *Radio Stamps* column. Host of the *Radio Stamps* shortwave program heard on the DX Partyline of HCJB, in Quito, Ecuador.

WWL
am-fm-tv

"Latin America on the Air"

60 minutes of air checks from Latin America and the Caribbean, 23 countries including most of South America, the Falkland Islands, and more, in a storage case. Order DXC/4, for \$7.50, from NRC Publications; NY orders, please add sales tax.



the CPRV page

COMMITTEE TO PRESERVE RADIO VERIFICATIONS

JERRY BERG, Chairperson • 38 Eastern Ave. • Lexington, MA 02173 • (617) 661-8481

RADIO ACKNOWLEDGMENT CARD

Date Dec 12 1992
Station **KQV** begs to acknowledge your letter
Reporting on Program and Transmission of Dec 4, 1992
Our Artists and the Personnel of this Studio greatly appreciate this attention and hope to bring you more from you during the season.
Daily Program: 1 except Sun. 11:00 A.M. and 3 P.M.
Evening Program: except Sun. 8:00 to 10:00 P.M.
Monday-Wednesday on 1 Fri day
Time: Thurs-Sat. and Sun. 10:00 P.M.
210 Meters
220 Meters
Eastern Standard Time
DOUBLEDAY-HILL ELECTRIC CO.
118-11 Liberty Ave
Pittsburgh Pa.
STUDIO PHONE
LEAST

WESTINGHOUSE EXPERIMENTAL STATION KFKX HASTINGS, NEBRASKA

THE FIRST RE-BROADCASTING STATION IN THE WORLD.
Wave Length: 100 Meters. Name: Variable
LOCAL PROGRAMS: MONDAY-THURSDAY
Re-broadcasting programs: KDKA at East Pittsburgh
Schedule not definitely determined.
Broadcasting from the studio of the Quaker Meats & Fisheries Co., at Hastings, Nebraska.

Dear Friend—
We regret that we are unable to answer your kind communication in more personal form. That, however, is impossible because of the number of letters received. We wish, nevertheless, to express our appreciation for the time and trouble you have taken to comment on our programs and assure you that your support will help us in planning better programs for the future.

Trusting to receive further suggestions and encouragement from time to time.
Gratefully yours,
THE WESTINGHOUSE ELECTRIC & MFG. CO.
STATION KFKX

Broadcasting Station W. M. A. K.

Loisport, N. Y. 11753
We wish to thank you for your kind report and assure you of our deep appreciation.
Our operating schedule is as follows:

Weather Report and Musical Program
A. M. to A. M., E. S. T. daily except Sundays
Musical Program
8 P. M. to 9 P. M., E. S. T. Tuesday
Wave length 300 and 405 meters.
Transmitter 300 Watts output.
We do not publish programs for distribution except to Newspapers.

NORTON LABORATORIES, INC.

RADIO BROADCASTING STATION

Rensselaer Polytechnic Institute, Troy, N. Y.
THE OLDEST SCHOOL OF ENGINEERING IN AMERICA
Graduate and Undergraduate Schools. Courses leading to the degrees of B. S., M. S., E. E., Ch. E., Ph. D., Sc. D., and D. Eng.

We thank you for your communication offering comments and suggestions regarding our program. The information gained from such comments is of great value in our efforts to improve the quality and range of our signals. We hope you will continue your interest in our Station and will offer suggestions regarding our future programs.
Our regular programs are sent out on 400 meters every Monday evening at 8:15, Eastern Standard Time.

RADIO DEPARTMENT.
RENSSELAER POLYTECHNIC INSTITUTE,
Troy, N. Y.

I would like to take this opportunity to reintroduce the Committee to Preserve Radio Verifications to members of the National Radio Club who may not have heard of us before. The CPRV was formed in 1986 by a group of DXers who were concerned about the absence of any organized method for preserving QSL's belonging to DXers who have left the hobby or passed away. Too often there is no one else in the family who appreciates the value of these old cards and letters, and many valuable QSL collections wind up being lost or thrown away. Each QSL carries a little bit of radio history with it. When QSL's are discarded, this history is lost forever.

The CPRV operates as a committee of the Association of North American Radio Clubs (of which the NRC is a member). The Committee serves as a repository for old QSL's. It also offers a Registered Collections Program—an uncomplicated way to provide for your QSL's after you are gone.

Medium wave DXers have been among our most enthusiastic supporters. If you would like more information about the CPRV, send a business size, stamped, self addressed envelope to me at the address shown above. I would be glad to hear from you.

Jerry Berg

A Committee of the Association of North American Radio Clubs